

DANCE ARRANGING



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DANCE ARRANGING

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DANCE ARRANGING

*A guide to scoring music for the
American Dance Orchestra*

BY
PAUL WEIRICK



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INTRODUCTION

In writing this book, the author has endeavored to present the essential details of dance arranging in a simple and direct manner. An arranger, in order to have a thorough foundation, should have a working knowledge of harmony and theory. It is often true that musicians having a natural talent for harmony overlook the many advantages that come from more study as well as the added inspiration that is developed from a theoretical background.

It seems an opportune time to present a book that covers these subjects in a simplified way, together with practical information for making dance arrangements. Obviously, such a book must include writing for Flutes and Clarinets as they are now used, Guitar, Violins as a section, together with a brief description of mutes for brass that are now popular. Many of these changes have occurred within the last few years and, no doubt, can be attributed to a general improvement in modern dance music. The extensive use of dance orchestras for radio programs has also created a demand for a finer quality of arrangements.

The purpose of the first half of this book is to provide the ambitious musician with the background for making good arrangements. Chapters covering the salient points of theory and harmony are included, together with a brief description of every instrument used in the average dance orchestra. Instruction is given for making transpositions along with a description of the tone colors that are produced by these instruments.

The second half of the book contains a chapter on duet and trio writing which explains how these parts should be written, as well as illustrates the difference between writing them for the Violins, Saxophones and Brass. The practical details of constructing a dance arrangement are then given in their consecutive order. In the chapter on Modulation, several modulating plans are suggested that will enable the arranger to modulate to any of the keys, giving him many possibilities for using original ideas.

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













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DYNAMICS AND SIGNS

SIGN APPEARING ON MUSIC	MUSICAL TERM	MEANING
<i>ppp</i>	<i>Pianissimo</i>	Very, very soft
<i>pp</i>	<i>Pianissimo</i>	Very soft
<i>p</i>	<i>Piano</i>	Soft
<i>mp</i>	<i>Mezzo-piano</i>	Medium soft
<i>mf</i>	<i>Mezzo-forte</i>	Medium loud
<i>f</i>	<i>Forte</i>	Loud
<i>ff</i>	<i>Fortissimo</i>	Very loud
<i>fff</i>	<i>Treble-forte</i>	Very, very loud
<i>fz</i>	<i>Sforzando</i>	Attacked with sudden force
	<i>Crescendo</i>	Gradually louder
	<i>Diminuendo</i>	Gradually softer
	<i>Legato</i>	Smoothly
	<i>Tie</i>	Notes tied are held over for full duration of time
	<i>Staccato</i>	Short
	<i>Tenuto</i>	Given full time value
	<i>Marcato</i>	Accented
	<i>Molto marcato</i>	Accented very much
<i>loco</i>	<i>Loco</i>	To be played in the register where it is written
<i>8va</i>	<i>Octavo</i>	To be played an octave higher if placed above notes, an octave lower if placed below
	<i>Dal Segno (D.S.)</i> ..	Repeat from sign
	<i>Coda</i>	To special ending
	<i>Abbreviation</i>	Repeat previous chord
	<i>Abbreviation</i>	Repeat previous measure
	<i>Abbreviation</i>	Repeat previous two measures
	<i>Repeats</i>	Placed at beginning and end of music to be repeated
<i>accel.</i>	<i>Accelerando</i>	Gradually faster
<i>mor.</i>	<i>Morendo</i>	Dying away
<i>rit.</i>	<i>Ritardando</i>	Gradually slower
<i>rall.</i>	<i>Rallentando</i>	Gradually slower
	<i>Tremolo</i>	Rapid repetition of the same note
	<i>Trill</i>	Rapid alternation of two notes
<i>gliss.</i>	<i>Glissando</i>	A slide from one note to another
	<i>Arpeggio</i>	Striking of the notes in a chord separately in [rapid succession]
	<i>Ped.*</i>	Pedal sustained on piano.
<i>arco</i>	<i>Arco</i>	Played with the bow
<i>spicc.</i>	<i>Spiccato</i>	To bounce the bow
<i>port.</i>	<i>Portamento</i>	To slide from one sound to another (applied to the voice and string instruments only)
<i>pizz</i>	<i>Pizzicato</i>	To pluck the strings with the fingers
	<i>Fermata (Corona)</i> ..	Pause or hold
<i>dolce</i>	.....	Sweetly
<i>espressivo</i>	.....	With expression
<i>brillante</i>	.....	Brilliantly
<i>Tempo di Valse</i>	.....	Waltz tempo
<i>Molto moderato</i>	.....	To be played with moderate tempo
<i>Valse moderato</i>	.....	Slower waltz tempo than <i>Tempo di Valse</i>
	<i>Light double bar</i> ...	Placed at the end of an introduction, interlude, modulation or chorus
	<i>Double bar</i>	Placed at the end of an arrangement

DANCE ARRANGING

CHAPTER I

THE SAXOPHONE SECTION

Because of its unusual amount of tone color, range and versatility, the Saxophone Section from the arranger's point of view, is the most important section in the orchestra. This section of the dance orchestra compares in importance to the string section of the symphony orchestra. It is the choir of the band, so to speak; and by using only three voices, attains enough volume to be heard in a room of considerable size. Some of the larger bands use four Saxophones, but the majority, only three.

The combination of Saxophones universally used to-day is two E-flat Altos and one B-flat Tenor. The players usually double on several other instruments, such as E-flat Baritone Saxophone, B-flat Clarinet, Flute, etc. All of the instruments generally used by the Saxophone Section will be taken up separately in the order of their relative importance.

The 1st E-flat Alto Saxophone plays the melody in practically every instance that the saxophones are playing in straight trio form. The range of the E-flat Alto Saxophone is from low B-flat to high F,



but in practice it is better to write it from low C to high E-flat.



The extremely low tones on any Saxophone are very hard to play and should be written only when unavoidable. The upper register of the E-flat Alto Saxophone is "bright" and "cheerful" in tone color; the middle register becomes "full" and "rich" while the low register is very "round" and "resonant." (See chart.)

The E-flat Alto Saxophone is pitched in the key of E-flat which means that when we play a C on the Alto Saxophone, we strike E-flat on the Piano. Therefore, the key signature of the E-flat Alto Saxophone will always be written a tone and a half lower than the key signature of the Piano. For example we will suppose that the key for the piano part is B-flat or two flats. Then the key signature for the E-flat Alto will be G or one sharp.

Because of the range covered by the E-flat Alto Saxophone, it must be written one octave higher after it has been transposed a tone and a half down to its key. For example:



THE B-FLAT TENOR SAXOPHONE

The B-flat Tenor Saxophone is similar to the E-flat Alto in shape but is larger in size. In a Saxophone trio, the Tenor Saxophone plays the principal harmony part.

The B-flat Tenor Saxophone's possible range is from low B-flat to high F,



but the practical writing range is from low C- to high E-flat.



In the very high register the Tenor Saxophone is "reedy" and "biting" in quality. The middle register of the Tenor Saxophone is of a beautiful, rich color and consequently is especially good for solos in that register. The extremely low register is very round.

The Tenor Saxophone is pitched in the key of B-flat. In other words, C on the Tenor Saxophone corresponds to B-flat on the Piano. Therefore, the key signature of the Tenor Saxophone is always written one full tone higher than the key signature of the Piano. However, in writing a given part on the Piano for the Tenor Saxophone, we must raise it an octave after transposing it one tone up from concert key.

For example:



Is written for
Tenor Sax.



At this point, the student should practice writing a melody with which he is familiar, first in concert key (or for the Piano); second, writing it for the E-flat Alto Saxophone and third, writing the same melody in a pleasing register for the Tenor Saxophone. He should then have the parts played on the respective instruments and note where the various tone colors appear.

If the reader will train himself to always **think** in concert key and automatically **write** whatever part he is working on in the key of the instrument, at the same time forming a mental picture of where the tone actually sounds, he will not find this transposing task very difficult. Eventually there will be no conscious effort in writing transpositions.

E-FLAT BARITONE SAXOPHONE

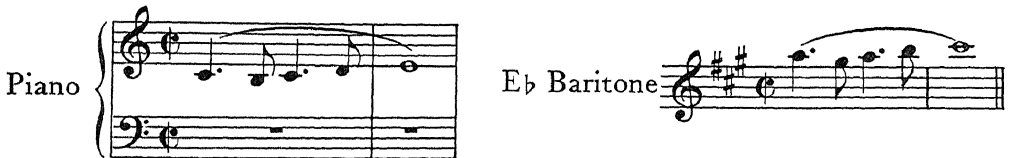
Next in importance is the E-flat Baritone Saxophone, which is now used to a great extent in the dance orchestra. Its soothing quality in solos gives it a peculiar distinction from all the other instruments. In harmony, two Baritones and Tenor or three Baritones, have a beautiful resonant color that is very valuable for organ effects.

The range of the E-flat Baritone is from low B-flat to high E-flat but in practice should be written from low C to high D.



The upper register is "appealing" and "soothing" in character, while the lower register is "deep" and "heavy." Baritone solos should be written so that they sound in the upper register of the Baritone, as its tone color in this register is much more appropriate for solos than in the lower register.

The Baritone, like the Alto Saxophone, is pitched in the key of E-flat. Therefore, its key signature is written a tone and a half lower than the key signature of the Piano. We must then write the Baritone part **two octaves** higher after transposing it down a tone and a half so that it will correspond with the pitch of the Piano.



It will be observed that practically all of the Baritone's register really **sounds** in the Bass Clef although it is **written** in Treble Clef.



IMPRACTICAL FINGERING

The arranger should avoid writing quick skips to or from the G-sharp in either octave on the Saxophone, as the fingering for this tone is rather awkward. Also the middle D- and E-flat are quite difficult to slur rapidly from tones directly underneath them. Most *arpeggios* are not particularly difficult to execute on the Saxophone.

Every Saxophone is equipped with an "octave key." By pressing this key with the thumb of the left hand, the saxophonist can jump an octave, either *legato* or *staccato*, very rapidly. However, it is much more difficult to **drop** an octave as the Saxophonist must assist the octave key with his lip by loosening its pressure on the mouthpiece. All of the tones between D- and C-sharp inclusive




are raised an octave by this key. All octave jumps in the range of the Saxophone not included in this register are more difficult to play.



The extent to which awkward fingering may be written depends a great deal on the player. Since all the Saxophones are fingered alike, the passages that are difficult to execute on one Saxophone will be equally difficult on every other one.

TRILLS

Either one or all three of the Saxophones are very effective in **trills**. In "hot" choruses especially, the trill will be found to be quite effective, if done in an appropriate spot. Other situations equally as effective will no doubt present themselves to the arranger.

The trill is accomplished by slurring very rapidly from one tone to another and is

written:— 

Trills of a half tone  or a whole tone  are usually the most effective.

Following are the respective ranges of the Saxophone that can be trilled in half tones.



The following are ranges for possible whole tone trills.



All half tones and whole tones in the range of the Saxophone not included in the above are difficult to play and for that reason are impractical to write.



Since the fingering is the same on every Saxophone, the above trills will apply to all of the members of the Saxophone family.

THE B-FLAT CLARINET

The B-flat Clarinet is a very important double in the Saxophone Section and is used by practically every Saxophone player. It has an unusually wide range and is adaptable to a great many color combinations and effects. Its possible range is from low E below the staff to high G above the staff. In practice it is better to consider the high E-flat as the upper limit; however, the low register can be utilized down to the low E. The Clarinet played in the high register is very "bright" and "piercing"; as it approaches the middle register it becomes "softer" and rather "dull." In the low register it becomes rather "dark" in the very low tones.

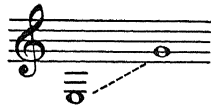
The Clarinet is pitched in B-flat. Therefore its signature is the same as that of the B-flat Tenor Saxophone or one tone higher than concert key. (The term "concert key" refers to the key from which all transpositions are made. The following instruments of the dance orchestra are written in concert key, and therefore do not require transposing:—Piano, Guitar, Violin, Flute, Oboe, Trombone, Tuba, String Bass, Bells, Vibraphone, Timpani.) However, the Clarinet does not need to be

raised an octave as is required for the Tenor Saxophone but is written exactly one tone higher than the Piano. For example:

Piano  is written for the B \flat Clarinet 

SUB-TONE CLARINET

The Clarinet played in the low register very softly, produces what we call a "sub-tone" effect and is generally used on smooth, flowing, *legato* melodies. The following is the most effective range for writing a sub-tone Clarinet:—





This effect is useful only in radio broadcasting, because the tone can be heard but a few feet from the instrument; but when a sub-tone Clarinet is held within a few inches of the radio microphone, it produces a round, rich tone over the air.

In writing a sub-tone Clarinet effect, if used for purposes other than radio or recording it is advisable to cue the part for the other two Clarinets, so that the arrangement will be effective. This unison effect produced by three Clarinets is of sufficient volume to be heard in the average room used for dancing.

A sub-tone effect can be written either for the melody of the composition or as an *obligato*, in which case, the melody of the composition should be played by an instrument of sufficient difference in tone color as will produce a pleasing contrast.

THE FLUTE

This instrument has grown steadily in popularity during the past few years until now many Saxophone Sections have all three players doubling Flute. Three Flutes are particularly useful for *staccato* figurations in the upper register. They are very beautiful for accompaniment to a vocal chorus. However, we do not necessarily have to use three Flutes, as two Flutes and one Clarinet, or one Flute and two Clarinets are very effective. In such cases, the Flute should have the top or melodic part of the figuration. The possible range of the Flute is from C below the

staff to C above high C.  The practical writing range, however, is  from D to high A.

The low register of the Flute is quite weak in volume and rather "dull" in tone color. This register is not practical for the dance arranger to use unless it is written

in unison with Clarinets for a special color effect. However, the low register of a Flute can be effectively used for solos or *obligatos* if played close to a microphone. Any type of figuration is much better in the upper register.



In this register the Flute is “bright” and “clear” in color.

The Flute is pitched in C and is written exactly the same as the piano in notation and key signature.



is written for
the Flute



The remaining instruments that are doubled by Saxophonists are so seldom used that we will not spend much time on them. It might be well to list their ranges as well as the various keys to which they must be transposed from concert key.

ALTO CLARINET

Written in Treble Clef, and **pitched in E-flat**.

Practical range-low E below the staff to high A above the staff. Written four tones and one-half **higher** than concert key.



BASS CLARINET

Written in Treble Clef, and **pitched in B-flat**.

Practical range-low E below the staff to high C above the staff.

Written one tone higher than concert key and then written an octave higher.



The Bass Clarinet actually sounds one octave lower than the same part played on a B \flat Clarinet.

E-FLAT SOPRANO SAXOPHONE



Written in Treble Clef.

Practical range-low F  to high D 

Written one tone and one-half down from concert key.

B-FLAT SOPRANO SAXOPHONE

Written in Treble Clef.

Practical range-low D  to high D 

Written one tone higher than concert key.

OBOE

Written in Treble Clef.

Practical range C  to high D 

Written in concert key.

ENGLISH HORN

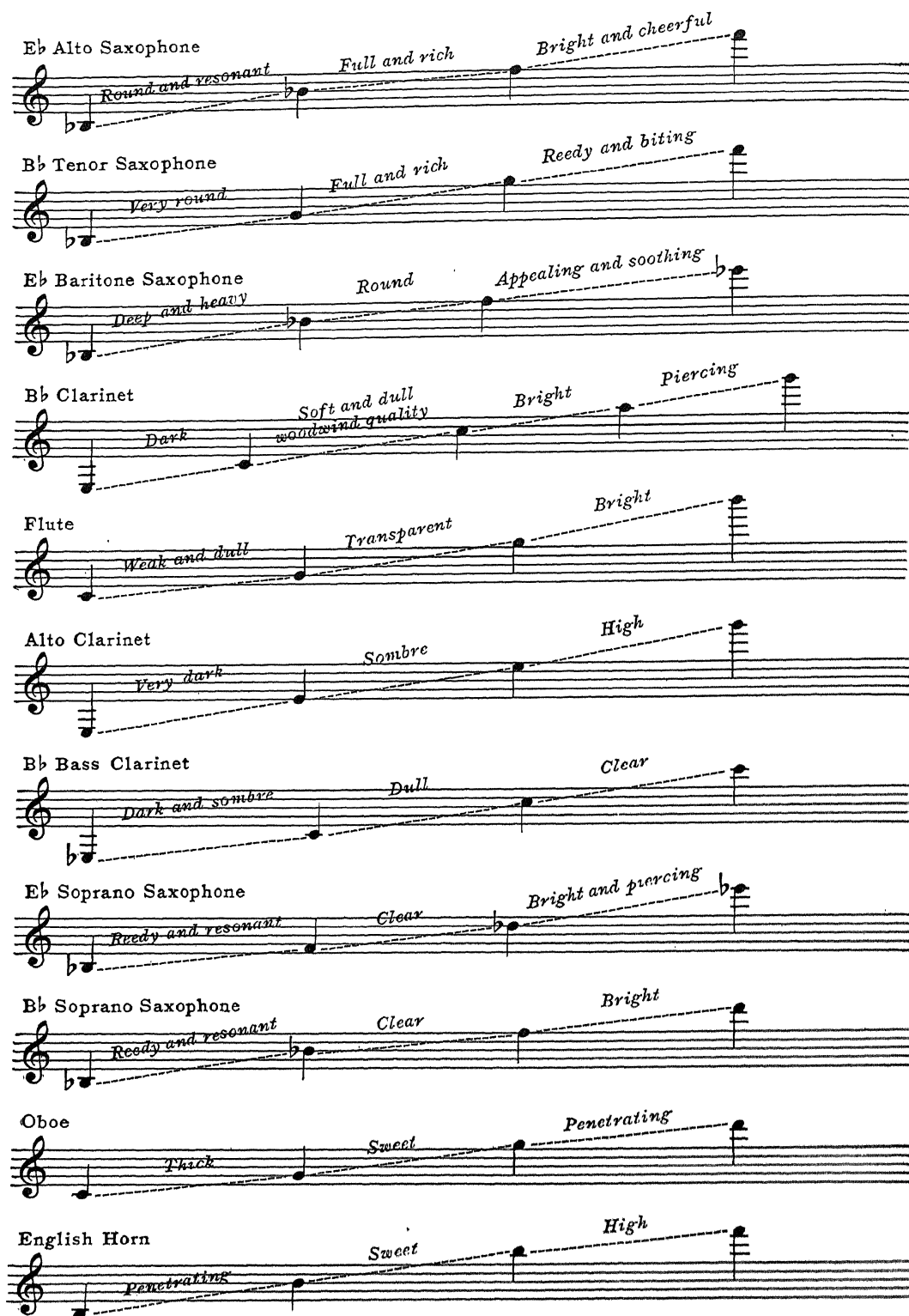
Written in Treble Clef, and **pitched in F**.

Practical range C  to high D 

Written a fifth higher than concert key.

Any of the instruments described in this chapter can be played either *legato* or *staccato*. The Saxophones, on account of their velvety and smooth character, are especially adaptable to the *legato* type of phrasing; but if a *staccato* effect is desired, such an effect can be played with good results.

Chart showing range and tone colors of instruments and doubles employed in the Saxophone section.



CHAPTER II

THE BRASS SECTION

This section of the dance orchestra is next in importance to the Saxophone Section, from the standpoint of arranging. The Brass Section is usually composed of two Trumpets and one Trombone. Some of the larger bands use three Trumpets and two Trombones while many of the small orchestras use but one Trumpet. Therefore, it can readily be seen that the arranger must mould his ideas to fit the particular section for which he is arranging.

The Brass Section adds color as well as volume to the Saxophone Section. It is particularly useful because both the Trumpet and Trombone are exceptionally colorful as solo instruments.

The Trumpet is usually very effective on both "hot" and "sweet" solos; but the Trombone, unless in the hands of a very competent "hot" man lends itself more to the smooth, sweet melodies.

The Brass Section, as a unit, can be written either in harmony or in unison (the Trombone usually is written an octave lower on all unison effects).

THE TRUMPET



The Trumpet, as it is used in the dance orchestra, is principally a melody instrument. It is equipped with three valves the purpose of which is to vary the length of tubing through which the breath of the player passes. These valves, with the help of the players embouchure or lips, produces the different tones. A great many tones can be played on the Trumpet without touching a valve, the player making the respective tones entirely with his lips.

The chair of "First Trumpet" in the dance orchestra is indeed a very responsible one. Here rests the responsibility of playing "sweet" solos besides carrying the melody in practically every ensemble chorus. If there is only one Trumpet player in the dance band, his position is all the more exacting, for he will have to play the "hot" solos as well as the "sweet" ones. In the bands that have two trumpets, the Second Trumpet player is usually the "hot man" and in such cases, solos of this nature should be intrusted to him.

The Trumpet's possible range is from low G-flat to high C. (See chart.) However, its practical range is from low B-flat to high A- or B-flat. There are accomplished Trumpet players that can play on up to high F, but they are the exception rather than the rule. The high notes on a Trumpet require a considerable amount of exertion and should be written very sparingly. If the arranger **must** use the high register of the Trumpet for a considerable length of time, he should give the player a rest in order that his embouchure will be prepared for the high notes.

The upper register of the Trumpet is quite "brilliant" and "penetrating," while the lower register is "round" and "resonant." The Trumpet is pitched in the key of B-flat. Therefore, it must be written a tone higher than the Piano or concert key. For example:

Ex. I

Piano  B-Flat Trumpet 

Arpeggios are more difficult to execute on a Trumpet than on a Saxophone because the Trumpet requires a great deal of "lipping" on the part of the player to jump from the lower register to the high or vice versa. Likewise, octave jumps are considerably more difficult for the Trumpet than the Saxophone. However, tones can be "attacked" with more force and volume than on a Saxophone. This fact in addition to the point previously mentioned regarding the brilliant tone of the Trumpet in the high register explains why the Brass Section is so effective in *staccato* and *marcato* passages.

THE TROMBONE

The instrument that is referred to in the dance orchestra as the "Trombone" is only one of the Trombone family. There are really four different sizes of Trombones, but the one universally used in dance bands is the slide type of Tenor Trombone. On this instrument the player produces the respective tones by moving a slide; and by varying the muscular tension of his lips.

The Trombone is used in probably more varied capacities than any other instrument in the entire dance orchestra. In one instance, it may be playing in harmony with the two trumpets; in another, it may be playing a counter-melody; in still another, it may be playing a solo in a soft hat or in megaphone; and in another, it may be playing the same part as the bass (of course, provided that the bass part is of sufficient importance to warrant doubling the Trombone with it). It can also be used very effectively with "hand over the bell" for French Horn effects. It blends beautifully with Saxophones as well as with the two Trumpets and can be played either *legato* or *staccato*.

Its possible range is from low E to high C. However, the practical writing range for the Trombone is from low F to high A-flat. (See chart.)

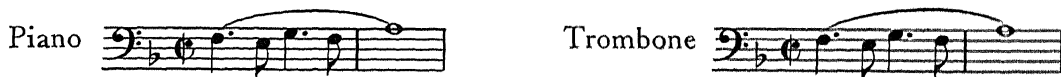


Nothing should ever be written above this range unless the arranger is certain that the particular Trombonist for whom the part is written, will be able to go beyond the regular range.

The low register of the Trombone is "dark" and "heavy"; the high register is "brilliant"; and when played softly in solo is "velvety" and "rich" in tone color.

The Trombone is really pitched in B-flat, but through custom its use is entirely as a "C" instrument in the Bass Clef, so that no transposing is necessary to write for the Trombone. For example:

Ex. 2



PRACTICAL WRITING

The Trombonist should not be forced to play fast moving parts; especially when these parts produce awkward positions. If the reader will refer to the chart, he will see under each note the respective positions on the Trombone that correspond to each tone. The figure "one" denotes the first position, or in other words, the

position that is reached with the slide all the way in. The player's right hand that moves the slide will be quite close to his body in this position. In the second position it is about $3\frac{1}{2}$ inches beyond the first. The seventh position is reached with the slide almost completely out. This position is quite awkward to play and should never be written except when unavoidable. The low B-natural played by this position is a very hard tone to produce with any degree of quality. In fact, all the tones from low B-natural on down to low E are so dark in color that they are not clear in the hands of many Trombonists. These low tones are quite difficult to slur in a pleasing manner and are more easily attacked.

By the aid of the chart combined with good judgment and a little observation, the reader should be able to construct good Trombone parts that will not lay awkwardly, but be in keeping with the instrument.

"BRASS IN UNISON"

Two Trumpets and Trombone in unison are extremely powerful especially when playing the melody. This unison effect is also good for brass figurations. If the figuration is of a *staccato* nature, the unison effect will usually be more pronounced with the brass open or in hat. If the figure is *legato*, the brass should be muted or in a hat.

MUTES

There are four types of mutes in general use for the Brass Section: The Harmon mute, the Solotone mute, the Tonal Color mute and Straight mutes. They all produce the effect of playing the instrument from a distance.

The Harmon mute is very thin and piercing in tone color, but is softer in volume than a Straight mute. It is very good for Trumpet solos with practically any type of background, and is also effective when used for brass figures of an especially light and delicate character. Trombone solos are not as good, as a rule, in a Harmon mute as in a Solotone mute.

The Solotone mute is an outgrowth of the Mega-mute. Both of them produce a tone that is similar to a Saxophone in color but somewhat softer. The Mega-mute has more volume and its tone is a little more round than the Solotone mute, but is much harder to play in tune, especially in the high or low register. For this reason, the Solotone mute is more universally used. It is very effective for brass figures as well as solos, and produces a mellow tone that is more round than that obtained by a Harmon mute. The brass in Solotone mutes can be combined very effectively with Clarinets in low register, producing a beautiful blend.

The Tonal Color mute is probably a result of the need for a mute that will register over a microphone when it is played a foot or so away. The effect produced by a Tonal Color mute is "stuffy" and "subdued." It is especially beautiful for Trumpet solos either for radio or in a medium sized room. When it is used for radio, the background may be any combination of instruments that the arranger thinks will be appropriate because the volume of the Trumpet will be greatly amplified over the background. However, in the average room used for dancing, care must be exercised in selecting the type of background. All of the rhythm instruments should be marked "p" or "pp" and the instrumental background should be of a very subdued character, such as: Clarinets in the low register or Violins (muted if in the high register, open or muted if in the low register). Saxophones are usually unsuitable as the average Saxophonist cannot play softly enough to avoid predominating over the Trumpet in a Tonal Color mute. *Staccato* figures and accented half

or whole note backgrounds are very effective for three brass in Tonal Color mutes. They will be heard with little trouble regardless of what instrument or group of instruments is playing the melody.

"Straight" mutes can be used in places that do not require a definite color such as is obtained with the mutes just described. All Straight mutes are piercing in tone color and usually have more volume than any of the other mutes. The tone of a Straight mute is not "sweet" enough for solo work, consequently it is seldom used for either Trumpet or Trombone solos.

Sufficient time should be allowed in the arrangement (at least one bar) to permit the player to pick up the mute.

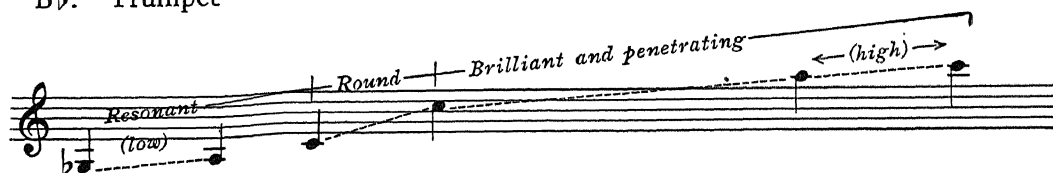
HATS

A Trumpet, played in a derby hat, produces a round, rich tone that is very good for solos. The Trombone can also be used in solos when it is in a hat, but is not as flexible as a Trumpet. Trombone solos, in Megaphone, open, or soft felt hat will usually be more effective.

The Brass Section can be used in hats for figures, backgrounds, organ effects, etc., wherever a round tone color is desired. The brass, in hats are very effective when written in unison.

Ex. 3

B♭. Trumpet



Trombone

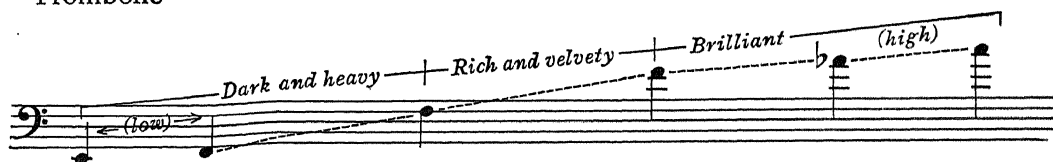
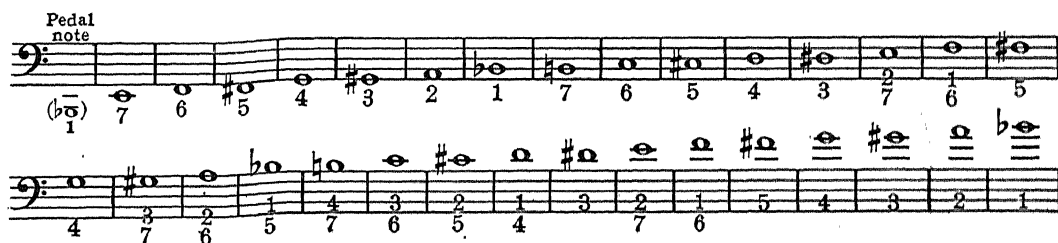


Chart of positions for the Trombone



CHAPTER III

THE STRING SECTION

In the dance orchestra, the strings have gradually advanced to a position of considerable importance. In its early stage the dance band completely ignored the strings, although they had always been the very "backbone" of the symphony orchestra. But, due to the marked improvement in the dance compositions as well as to the influence of radio, the strings now occupy a very important place in the larger dance orchestras.

In the symphony orchestra, the strings are divided into five separate groups; viz.: First Violins, Second Violins, Violas, Cellos and Basses. Up to the present time, the Violin and String Bass are the only two that have been universally adopted in the dance band. The Viola is doubled by a few Violinists; its unusual quality and range making it a very valuable double. The Cello is seldom found in the dance orchestra because its tone is easily imitated by the Baritone Saxophone, moreover it is not as rhythmic in character as the other instruments of the string group.

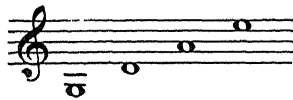
The addition of strings adds color and warmth to the Saxophones in addition to providing the arranger with a section of considerable range that is certainly greatly to be desired in the dance band. In its present status, the dance orchestra that does not have a string section is deficient in its high register, the B \flat Clarinet being the only instrument universally used that has a high register. All the other instruments in the regular wind group are middle register and low register. The B Clarinet is quite useful in its place, but is entirely unsuited for carrying melodies in its high register that do not lend themselves to its characteristic quality.

The Violin is the answer to this need and the more Violins we have, the better. Of course, if we have but one, the possibilities are far less than if we have two or more. One Violin can be used in a solo or *obligato* very effectively; but with two or more Violins we have a section that provides a great many more possibilities for colorful effects.

THE VIOLIN

The four strings of the Violin are tuned from low to high G, D, A and E These correspond to the following notes on the staff:


Ex. 1



In the actual playing of the Violin, the player draws the "bow" across one or more strings, thus setting up musical vibrations. The length of these vibrations can be changed at will by pressing with the fingers of the left hand on various parts of the string along the fingerboard. The shorter the vibrating length of the string, the higher the tone that will be produced.

The Violin can be held and fingered in various places on the fingerboard. These are called "positions." When the player's left hand is at the very end of the

fingerboard farthest from the bridge, he is in the first position. There are seven positions on the Violin, but the ones usually used are the first, third, fifth and seventh. In the seventh position, the player's left hand is nearest the bridge. The violinist must play in one of the positions above the first whenever he plays



higher than  on the E string, as this note is the highest that can be

reached in the first position. The other strings can also be played upon in any of the positions.

The possible range of the Violin is from low G to high A.



It is in "concert key" or the same as the Piano and does not require any trans-

posing. In practice it is advisable to use  or perhaps  when

necessary as the upper limit.

The high register of the Violin has a "singing" quality that grows increasingly thin as the instrument ascends in pitch. The middle register has less volume than the high, but produces a round, rich tone color. The low G string is penetrating.

The arranger will find that neither the low nor middle registers of the Violin will be heard over the whole orchestra in "ensemble." Therefore, the Violin should be written in the upper register either on the melody or on an *obligato* whenever the orchestra is playing in ensemble.

The Violins are capable of producing a surprising number of different sounds, the most important being: *Pizzicato*, meaning to "pluck" the strings (written *Pizz*); *arco*, meaning to play with the bow; *spiccato*, meaning to "bounce" the bow (written *Spic*); *legato*, meaning to be played smoothly; and *staccato*, meaning short.

"Down bow" is written with the sign \square and "up bow" is written ∇

The *pizzicato* effect is very valuable and effective in the dance band when used in conjunction with muted Trumpets and Clarinets written *staccato*. At the end of a "*pizz*" effect, the Violin part should be marked *arco*, meaning "to be played with the bow."

Trills are very effective, especially if written in the high register. They are marked *tr*.....



There is practically no limit to the number of possibilities in writing for strings. They are very effective when written in unison on the G string, especially on melodies of a "sweeping" character. This effect should be marked "sul G,"

meaning that the part is to be played entirely on the "G" string. The practical range for "sul G" writing is:—



Any melody that goes beyond this range can be marked either "sul G" (The line terminating at the point the melody goes beyond the G string's effective range); or merely "unison."

The Saxophones in unison or octaves doubled with the strings in unison produce a beautiful, resonant effect; and add considerable volume and warmth to the unison Violins.

The strings are probably used more in *divisi* than any other way in the dance orchestra. By *divisi* we mean one Violin playing the upper part (usually the melody) while the other Violin plays the lower part (harmony). Both parts are written on the one staff, one part above the other and marked "div." In bands possessing three Violins, the third Violin should be written on a third part in harmony with the first two Violins.

Violins are very beautiful in the middle register when written in harmony. However, they are lacking in volume in this register and will not predominate over Saxophones, being similar to them in tone color.

Three Violins in harmony, written above a muted Trumpet solo produce a very pleasing effect. The muted Trumpet melody, because of its characteristic tone color, will stand out above the Violins while they will blend with the tone color of the Trumpet very beautifully.

The Violin is probably the most effective instrument for writing *obligatos* in the whole dance orchestra. No doubt the reason for this is because it can attain so great a degree of expression combined with flexibility. Writing a good *obligato* is an art in itself and will be explained in detail later.

DOUBLE STOPS

Two, three or four strings can be played at the same time. Two strings (called **double stops**) are the ones ordinarily used. However, this is quite difficult to perform and should be written sparingly and only on rather slowly moving parts. If only one Violin is available, *pizzicato* effects will be more effective written in double stops.

Not all of the intervals can be written in double stops. The following chart will serve as a guide to the arranger in writing possible double stops.

Ex. 2

First Position

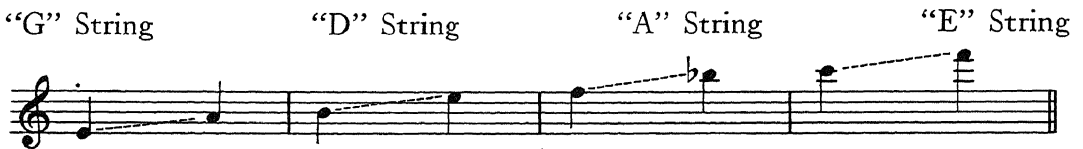


* Played by the fourth finger.

Third Position



Fifth Position



It is apparent that the only intervals possible in double stop form are the ones that can be played on separate strings. For example, the following interval



is impossible to play on a Violin because both of the tones must be

played on the G string and cannot be played at the same time.

Any note in the "G" string range in the first position can be played in double stop with any note in the "D" string range in the first position. Any note in the "D" string range can be combined with any note in the "A" string range (both in the first position), and so on. The same system will apply in any other position. Naturally only one position can be played at one time, so both notes of the double stop must be figured for the same position.

Double stops should be kept in the first or third positions as much as possible. The arranger will find it helpful to try visualizing the fingering as it is done on the fingerboard of the Violin.

THE VIOLA

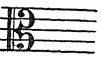
Since the Viola is fast becoming popular as a double by Violinists in the dance orchestra, brief instruction in writing for the instrument will be given along with a short description of the Viola.


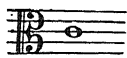
The strings of a Viola are tuned, from low to high, C, G, D and A. These tones correspond to the following, in pitch:—



The practical writing range of the Viola is:—



It will be observed that both the treble and bass clef are used for illustrating the open strings of the Viola in the above example. To avoid the confusion necessitated by two clefs, the Viola is given a separate clef called the tenor clef. The sign of this clef is:—  and the third line of the staff is called middle C. For

example,  corresponds in pitch with . The open strings of the Viola will then be written in its clef as in the following example:—

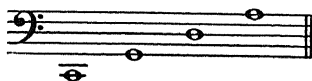


The Viola is similar to the Violin in shape, but is slightly larger; having a more resonant tone than the Violin, and, as can be observed by studying the above example, a lower register.

Although the Viola is used in the dance orchestra principally in the capacity of a solo instrument, it can be used for counter-melodies, or it can be combined with two or more Violins (in harmony or unison) with good results.

THE CELLO

The Cello is tuned from low to high C, G, D and A. These tones are written in the bass clef as in the following example:—



The practical writing range of the Cello is:—



When this instrument is employed in a dance orchestra, it is used principally for playing counter melodies. It can also be used as a solo instrument and has a beautiful, deep, rich tone. However, for reasons before stated the Cello has not become popular in the dance orchestra, its use being confined mainly to large theatre or radio orchestras.

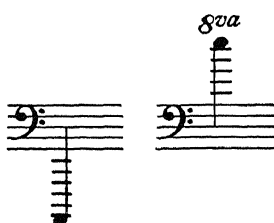
CHAPTER IV


THE RHYTHM SECTION

The Piano, Guitar (or Banjo), String Bass (or Tuba), and Drums are the instruments included in practically every Rhythm Section. Its chief purpose is to provide the rhythmic background that is so essential to every dance orchestra. However, each rhythm instrument can contribute to the arrangement individually by the employment of its own color effects by the arranger.

PIANO

This instrument is the very "heart" of the Rhythm Section. It plays both the bass part as well as the harmonic foundation of the Brass, Saxophone and String parts. This is accomplished by playing the bass (usually in octaves) with the left hand and chords with the right hand. These chords are usually composed of three notes, but four note chords may be written if the arranger desires to strengthen the rhythm.

The possible range of the Piano is from 

Chords written for the right hand should be placed with the highest note of the chord appearing within the following range: 

Good



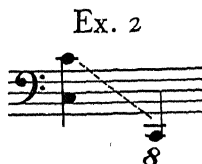
Ex. 1



Not Good



The bass part can be written with good results in this range:

Ex. 2



The figure 8 below a bass note informs the player that he should play an octave along with the written note. For example  is played 

The purpose of the "8" is to eliminate the writing of so many added lines.

The respective registers of the Piano are all related to one another in regard to tone color. However, the upper register is "thin" and "celeste" like, while the lower is "round" and "heavy." The general tone color of the Piano "takes the edge off" of the more harsh sounds created by the other rhythm instruments, uniting them into one "rhythmic" tone color.

It should be remembered that the Piano is primarily a part of the rhythmic background in the dance orchestra. The only time that it departs from this function is in solo work or perhaps a special color effect, such as a Chime, *arpeggio*, Music Box effect, etc. When it departs from its regular function for any duration of time, the remaining rhythm instruments should be marked at least one degree more in volume than is usually written, to have them make up for the "gap" caused by the absence of the Piano. For example, the remaining parts should be marked "mf" if they have been playing "mp" with the assistance of the Piano, and so on.

TYPES OF RHYTHM

The "treble" half of the Piano as well as the brass may play many different types of rhythm, the most important of which are shown below:

Ex. 3

Ex. 3 displays nine musical examples (a through j) illustrating various rhythmic patterns for the Piano. Each example is written in 4/4 time and uses a grand staff (treble and bass clef). Examples a, b, and c show simple patterns with rests and eighth notes. Examples d, e, and f show more complex patterns with eighth and sixteenth notes. Examples g, h, and i show patterns with chords and rests. Example j shows a pattern with eighth notes and rests.

Examples a, b, and c are most often used. Examples d, e and f are very effective for "hot" riding tunes of fast *tempo*, especially if the bass part is doubled in a string bass. Examples g, h and i are very good for color effects. Example j is a rumba style of rhythm.

In writing straight rhythm, the bass part does not have to be made entirely of quarter notes; neither does it have to be made up entirely of half notes. Good taste will guide the arranger best in this respect.

The mood of the composition as well as the color of the particular combination being orchestraed will largely determine the type of rhythm that will be found most effective. Detailed information on making Piano parts will be given in chapter VII.

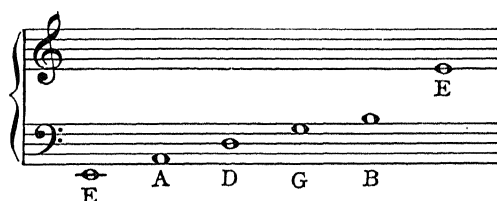
THE GUITAR

The Guitar has replaced the Banjo in the majority of dance and radio orchestras.

The average Banjo player can read from a Guitar part with little trouble, since the names of the chords are all given and he can easily visualize the appropriate Banjo chords from the written Guitar chords.

The Guitar that is used in the average dance band has six strings; tuned from low to high: E, A, D, G, B and E. These six tones correspond to the following notes on the piano:

Ex. 4



The two bottom strings are the "basses" of the Guitar and are very deep and resonant in tone color. The Guitar blends with the remainder of the Rhythm Section more than the Banjo; the latter having a more piercing and dominating tone color.

It will be seen that a large part of the Guitar really sounds in the bass clef. However, for the sake of simplicity, we write it entirely in the treble clef and in such a way that the written note actually sounds an octave lower.

Ex. 5

For example, the written chord





Ex. 6

actually sounds here on Piano



The fingerboard of the Guitar is equipped with "frets" which produce a definite tone when the fingers are held next to them and the strings hit with a pick.



The range of the Guitar is from low E  to high B .

The very high register has a "harp-like" color and can be used for such an effect.

The Guitar is in concert key (the same key as the Piano).

The following are all the different chords (including their fingering) that are practical on the Guitar. Each chord position can be ran up to the position indicated on the staff in the examples.

The chords marked "inside" are played on the inside strings, the top E string remaining silent.

The top note of the Guitar chords should progress as smoothly as possible in a pleasing manner even though the intervals in the remainder of the chord may have to be resolved against the rules. Limitations in fingering may compel the arranger to make false resolutions. However, the complete chord should be resolved correctly whenever possible. (Barre  denotes one finger pressed across fingerboard.  denotes two strings played with one finger.)

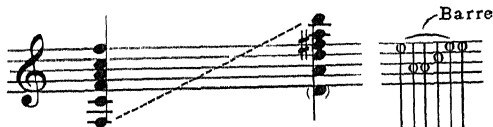
GUITAR CHORDS

Ex. 7

Majors

Minors

Tonic on top



Tonic on top



Third on top



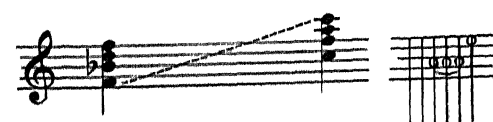
Third on top



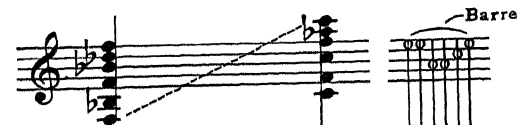
Third on top (Inside chord)



Fifth on top

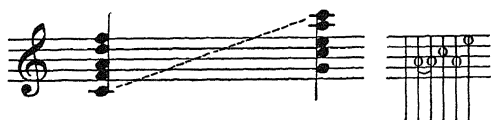


Fifth on top

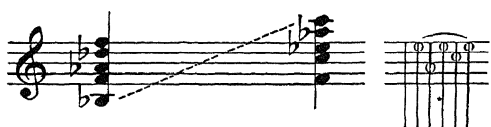


MAJORS ADDED SIXTH

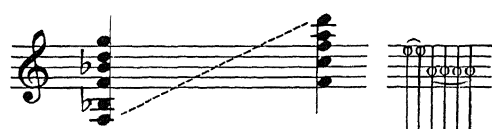
Tonic on top



Third on top (Better as minor seventh)

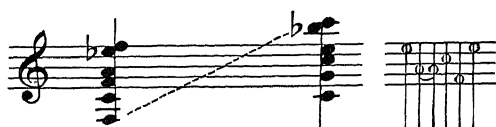


Sixth on top

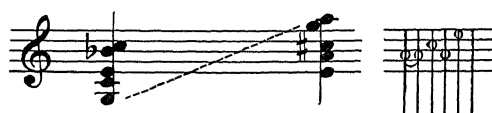


SEVENTH CHORDS

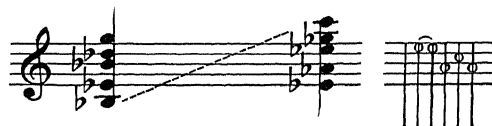
Tonic on top (Outside)



Tonic on top (Inside)



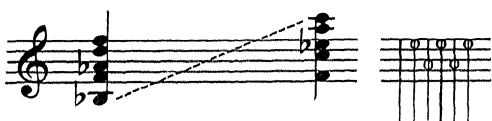
Third on top



Fifth on top

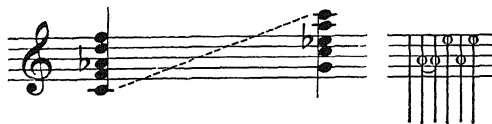


Fifth on top (second choice)

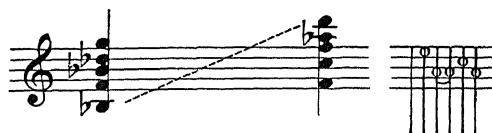


MINORS ADDED SIXTH

Tonic on top

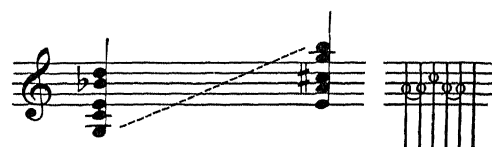


Sixth on top

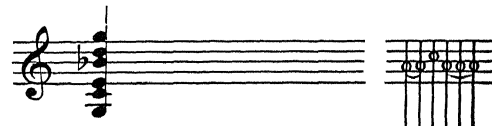


NINTH CHORDS

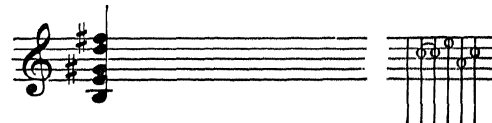
(Inside)



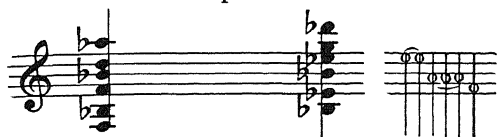
Fifth on top (Outside)



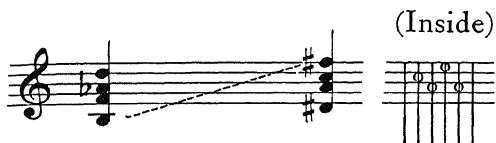
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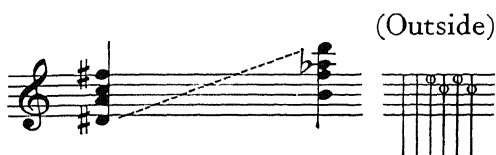
Seventh on top



DIMINISHED SEVENTHS

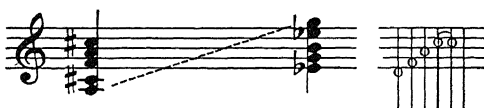


(Inside)



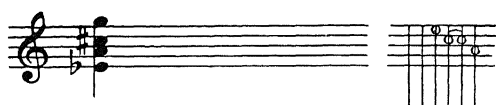
(Outside)

AUGMENTED FIFTHS



(Inside)

NINTH WITH AUGMENTED FIFTH



SUSPENSIONS

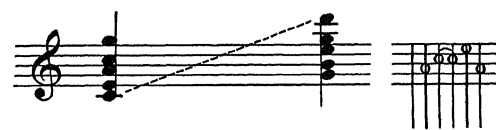


MINOR SEVENTHS

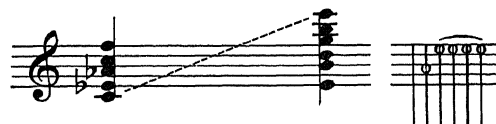
Third on top



Seventh on top



Tonic on top



ALTERATIONS

(Inside chord)



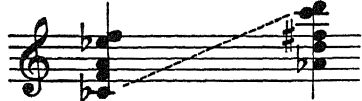
C7b5



(x denotes string played with thumb)

ALTERATIONS (CONTINUED)

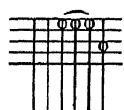
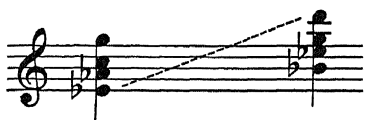
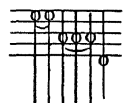
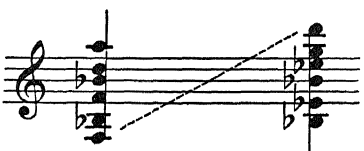
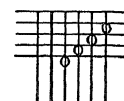
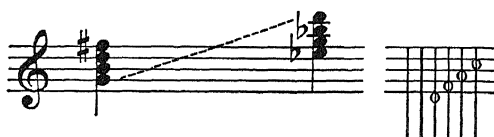
F7(b5)



(Outside)



MAJOR SEVENTHS



Harp, Chime or Music Box effects should be written in the following register:

Ex. 8



Ex. 9



Example 9 illustrates an effective position of an A-flat added sixth that is appropriate for an ending to an arrangement. This can be used in place of a Vibraphone chord.

The arranger should avoid skipping from one position to another in such a way that it forces the player to jump a distance of two or more frets. For example:



(Not Good)

(Good)

The range of the Guitar that is most effective is that which is nearest the keys or the extreme end of the fingerboard. Therefore, the arranger should endeavor to voice the Guitar chords so that the top note of the chord usually falls within this



(the chords falling in the lower half of the above range are the more resonant.)

MAJOR CHORDS FOR THE GUITAR

KEY	As written for right hand of Piano	As written for Guitar
C		
D \flat		
D		
E \flat		
E		
F		
G \flat		
F \sharp		
G		
A \flat		
A		
B \flat		
B		

(Chords in small notes are optional for special effects.)

RELATIVE MINOR CHORDS FOR GUITAR

KEY	As written for right hand of Piano	As written for Guitar
A minor		
B♭ minor		
B minor		
C minor		
C# minor		
D minor		
E♭ minor		
E minor		
F minor		
F# minor		
G minor		
A♭ minor		

(Chords in small notes are optional for special effects.)

DIMINISHED SEVENTH CHORDS
FOR GUITARAs written for right
hand of Piano

As written for Guitar

The image displays a table of diminished seventh chords. It is organized into two main columns: 'As written for right hand of Piano' and 'As written for Guitar'. There are 12 rows, each representing a different diminished seventh chord. Each row contains two musical staves. The left staff in each row shows the chord as written for the right hand of a piano, typically with a treble clef and a key signature of one sharp (F#). The right staff shows the chord as written for guitar, typically with a treble clef and a key signature of one flat (Bb). The chords are labeled on the left of each row: A# dim., B dim., B# dim., C# dim., D dim., D# dim., E dim., E# dim., F# dim., G dim., G# dim., and A dim. The notation includes notes, accidentals (sharps, flats, and naturals), and a 'dim.' symbol for each chord. The guitar notation often includes a natural sign for the second degree of the chord, which is a common convention in guitar notation for diminished seventh chords.

Chord	As written for right hand of Piano	As written for Guitar
A# dim.	[Musical notation]	[Musical notation]
B dim.	[Musical notation]	[Musical notation]
B# dim.	[Musical notation]	[Musical notation]
C# dim.	[Musical notation]	[Musical notation]
D dim.	[Musical notation]	[Musical notation]
D# dim.	[Musical notation]	[Musical notation]
E dim.	[Musical notation]	[Musical notation]
E# dim.	[Musical notation]	[Musical notation]
F# dim.	[Musical notation]	[Musical notation]
G dim.	[Musical notation]	[Musical notation]
G# dim.	[Musical notation]	[Musical notation]
A dim.	[Musical notation]	[Musical notation]

(Chords in small notes
are optional for special
effects.)

DOMINANT SEVENTH CHORDS FOR GUITAR

As written for right
hand of Piano

As written for Guitar

KEY					
C		G7			
D \flat		A \flat 7			
D		A7			
E \flat		B \flat 7			
E		B7			
F		C7			
G \flat		D \flat 7			
F \sharp		C \sharp 7			
G		D7			
A \flat		E \flat 7			
A		E7			
B \flat		F7			
B		F \sharp 7			

Chords in small
notes are optional
for special effects.

SEVENTH CHORDS (with lowered fifth as bass note) FOR GUITAR

As written for Piano

As written for Guitar

The image displays a table of 12 seventh chords, each with a lowered fifth as the bass note. The table is organized into three columns: the chord name, the piano voicing (As written for Piano), and the guitar voicing (As written for Guitar). Each row represents a different chord, and the piano and guitar columns show the corresponding musical notation on a five-line staff.

Chord	As written for Piano	As written for Guitar
C7(b5)		
C#7(b5)		
D7 b5		
Eb7(b5)		
E7(b5)		
F7(b5)		
F#7 b5		
G7 b5		
Ab7 b5		
A7 b5		
Bb7 b5		
B7 b5		

NINTH CHORDS FOR GUITAR

For straight rhythm Dominant Seventh chords can be substituted for Dominant Ninths. The chords illustrated here should be used only when the voices progress smoothly to them.

Fundamental Ninth chords As written for the Guitar

A 9th

B \flat 9th

B 9th

C 9th

C \sharp 9th

D \flat 9th

D 9th

E \flat 9th

E 9th

F 9th

F \sharp 9th

G 9th

A \flat 9th

The Guitar can be written on any of the types of rhythm given in the section on the Piano. Unless some outstanding rhythmic effect is desired, the Guitar should be written with a Bass note as the first beat, followed by a chord on the second beat; then a Bass note for the third beat followed by a chord on the fourth beat. It will be seen that this type of rhythm accentuates the second and fourth beats. (See example):



In a rhythmic number, four beats to the bar will usually be more effective.



In writing inversions of the Dominant Seventh and Ninth chords, the Bass note should not be written as the top note for the Guitar. This also applies to writing the first inversion of a triad (third in the bass). These chords are explained in the Chapter on Harmony.



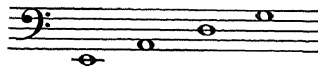
The top note may be omitted from any of the chords shown in the charts. Also the bottom note or two bottom notes may be dropped off. At least a four string chord should always be written, however, to give the necessary depth.


THE BASSES

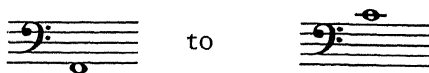
Both the String Bass and the Tuba are used in the up-to-date dance orchestra. Therefore, both of these instruments will be taken up in detail.

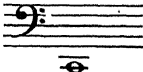
The "String Bass" is a four stringed instrument and is tuned from low to high, E, A, D and G.

These tones are written:

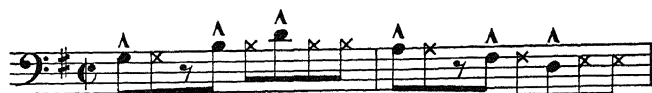


Its range extends upwards to high "A"  but the practical writing range for the String Bass in the dance band is from:

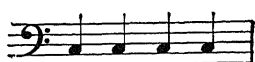


There are also Basses with five strings, which are very seldom used in the dance orchestra, the added string being low C, sounding 

The String Bass can be played either *pizzicato* (plucked with forefinger) or *arco* (played with the bow). The *pizzicato* effect is very good for fast "hot" arrangements, especially when the player "slaps" the bass in addition to plucking the strings. Four beats to the bar can be written for this effect and marked "*pizz*" and "slap," or the beats that are slapped can be designated by the symbol x on the bass part. Following is an example of an effective Rhumba style of rhythm that is accentuated by slapping:



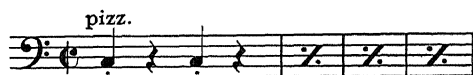
In slow numbers, the bass is often written four beats to the bar.



This type of rhythm can easily become monotonous unless it is varied slightly, for example:



(See bass rhythms in Piano chapter.) The "*pizz*" alone is very good for rhythmic color effects such as the following:



When the bass part remains on the same tone for a succession of bars (either sustained or in rhythm), it is called a pedal or organ point. The latter two foregoing illustrations are examples of organ point.

More will be said of this in Chapter IX, Part 2.

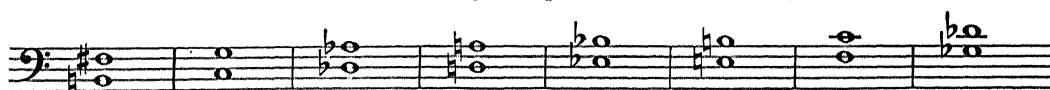
Double stops can be written for sustained organ point passages, one string usually playing the Tonic (1st degree) and the other, the Dominant (5th degree). Therefore, the interval known as a fifth is the most common in double stop writing for the bass. The following chart shows intervals of a fifth that can be used for sustained bass writing in double stop form:

Played upon E and A strings



Played upon A and D strings

Played upon D and G strings



THE TUBA

This instrument is the Bass of the brass family. It is most frequently used in the capacity of a rhythm instrument in the dance orchestra and belongs to the rhythm section.

There are many different types as well as sizes of Tubas; therefore, it is difficult to quote a definite range, as this varies considerably with the size of the instrument.

The arranger will be safe in writing in the following range, regardless of the type of Tuba that is being used:



The upper register of the Tuba is not as "round" and "full" as the lower register; however, the entire range is solid and forms a substantial foundation for the other wind instruments. It is pitched in B-flat, but written in the key of the Piano.

Bass parts of a *legato* or sustained nature are more effective when played on a Tuba, than on a String Bass. The Tuba blends well with both the brass and Saxophones, and is very effective when it is voiced on a melodic bass part with either of them. Its higher register is the more adaptable to this purpose.

The Tuba can also be played *staccato* and is more flexible than the String Bass; fast moving parts are easier to execute on Tuba than String Bass.

If the arranger is writing for a bass player that plays both String Bass and Tuba, he should specify on the part which instrument is to be played. In cases where the arranger is writing for an unknown band, such as is done in printed arrangements, the bass part should be written in a happy medium between the ranges of the String Bass and Tuba. The following register will be practical for such cases.



The Tuba player will then transpose his part an octave lower if it goes beyond the practical range of his instrument.

THE DRUMS

Although the Drums are the last of the rhythm instruments to be taken up, they are by no means the least important. In fact they actually create more rhythm than any of the other instruments in the rhythm section.

The numerous instruments used by the drummer today can be classified in two groups. 1st, the percussion group; 2nd, the melodic group.

The instruments belonging to the percussion group have no actual musical pitch. The percussion instruments are as follows:

Bass Drum	Triangle
Snare Drum	Brushes
Tom-Tom	Wood Block
Tambourine	Slapstick
Crash Cymbal	Wind Whistle
Small Cymbal	Duck Quack, Siren, etc.
Chinese Gong	Chinese Blocks
Foot Cymbal	

The melodic group consists of:

Vibraphone

Bells

Xylophone


Timpani


Marimba

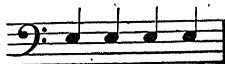
Chimes

The percussion group are all written in the Bass clef with no key signature. The melodic group are all written in the Treble clef with but one exception, the Timpani, which is written in the Bass clef.

The melodic group are all written in concert key and do not have to be transposed. They should be written with a key signature, the same as any other melody instrument, except in cases where a very short phrase of only a few bars duration is played. In such cases the accidentals can be inserted instead of using the key signature. The latter method is easier for most drummers to read than the former.

For example: 

The Bass Drum is played by a foot pedal and is written on the bottom space of the staff, thus: 

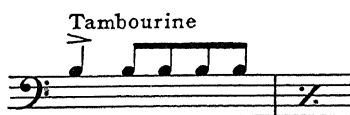
The Snare Drum is written on the third space of the staff, thus: 

The Snare Drum can be played without the snares producing a "muffled" sound. If this effect is desired, it should be marked "muffled."

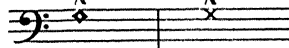
The Tom-Tom is written above the staff and designated:

Tom-Tom 

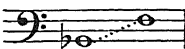
The Tambourine is written the same as a Tom-Tom but marked "Tambourine."

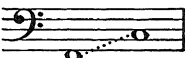
Tambourine 

The Crash Cymbal can be struck with either a regular drum stick or a soft mallet. If the latter is desired, the part should be marked "soft mallet." The Cymbal can be "choked" (cut short) or "let ring." These terms should be written on the part as follows:

Cym. Choke
let ring Cym.



The Timpani, sometimes called "Kettle Drums," are particularly effective in the ending of an arrangement, or in other passages when the band is playing forte.

The Timpani are built in two sizes, commonly called "Small Timpani" and "Large Timpani." The range of the Small Timpani is from B-flat to F, 

The Large Timpani's range is from low F to C, 

This means that any tone in these two ranges can be played on the Timpani, provided enough time has been allowed for the drummer to tune to that pitch.

The tuning is accomplished by turning handles on the rim of the Timpani, or by means of a foot pedal that changes the pitch. If the Timpani is equipped with a foot pedal, the tuning can be accomplished in considerably less time than by the hand system. Time should be allowed for tuning the Timpani to the desired pitch. Eight or ten measures will, in most cases be sufficient.

The "roll" is effective on the Bass Drum, Snare Drum, Timpani, Tom-Tom, Tambourine, Cymbal, Chinese Gong, Triangle and Chinese Blocks. It is designated by the sign  and is written above whatever note should be rolled. For example:



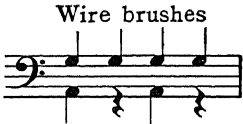
The roll should be terminated on a definite beat, such as a quarter or eighth note.

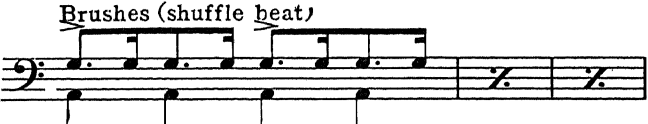
The Foot Cymbal is attached to the Bass Drum and is struck by the foot pedal. It is used at the discretion of the drummer but is not important enough to write a separate note designating its use.


The Chinese Gong is written  and is struck with a soft mallet.


THE DRUMS
The Triangle is written, 

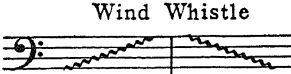
Wire Brushes are used on the Snare Drum to produce a "swishing" effect that is very rhythmic. They should not be used if the remainder of the orchestra is playing more than "mf" in volume, as their effect will be lost. They are especially good behind a vocal chorus.

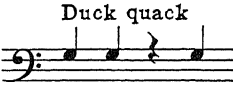
Wire Brushes are written, 

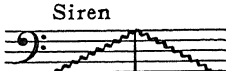
The "shuffle beat" is an exceptionally rhythmic effect and is played by wire brushes. It is written, 


The Wood Block is written, 

The Slapstick is written, 

The Wind Whistle is written, 

The Duck Quack is written, 

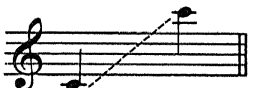
The Siren is written, 

The Chinese Blocks are written, 

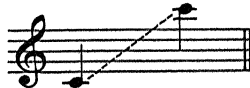
The Vibraphone is played by striking one or more of the bars with a soft mallet. It has a mellow tone that is very enchanting and has considerable carrying power. It blends well with any of the instruments in the dance orchestra and is very effective when used as a background for a vocal chorus.

Many Vibraphones are equipped with a damper which is controlled by the foot. This damper stops the vibrations and is very effective for eliminating the overlapping of chords.

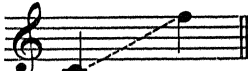
The Vibraphone can be played with two, three, or four mallets. By means of a mechanical device on the instrument, vibrations are set up from the minute the hammers strike the bars till the tone dies out or the damper mentioned above is brought into play.

The range of the Vibraphone varies with the size of the instrument. The following range will be found suitable in practically every case:— 

Orchestra Bells are played with either soft or hard mallets. The hard mallets are more penetrating and are more effective in arrangements. Orchestra Bells are written in the same register as the Vibraphone, but sound an octave higher. The

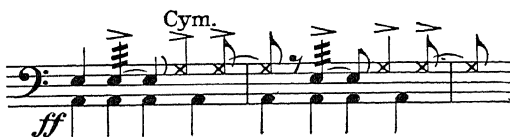
practical writing range is from C to C as in the example:— 

Chimes are played by soft mallets and sound one octave higher than written.

Their range is from C to F as in the example:— 

The Marimba and Xylophone are manufactured in a large assortment of sizes. Each size has its own individual range, so it is impossible to quote any definite range. The Marimba and Xylophone are only suitable for solo work, or for accompaniment to a singer. They are not generally used in dance arrangements.

Any of the rhythms shown in the section covering the Piano can be written for the drums; the Bass Drum being given the rhythm played by the left hand or bass of the Piano and the Snare Drum the rhythm played by the right hand or treble part of the Piano. There are, however, a few rhythms that can be played only on drums. These rhythms are used especially in "hot," "swingy" choruses where the Drums are employed for creating an exceptional amount of rhythm. Examples of such rhythms follow:



CHAPTER V

THEORY

DEGREES OF THE SCALE

All the **lines** and **spaces** in a staff are called "degrees."

The Major and Minor Scales are made up of seven degrees.

In the C Major Scale, we call C the first degree; D the second degree; E the third degree, etc. The first degree of the scale is called the "Tonic." The fifth degree of the scale is called the "Dominant."

Ex. 1



This system applies to every key. In the key of E-flat, the degrees of that scale will start with E-flat as the first degree. In this key the Dominant or fifth degree is B-flat. See Example 2.

Ex. 2

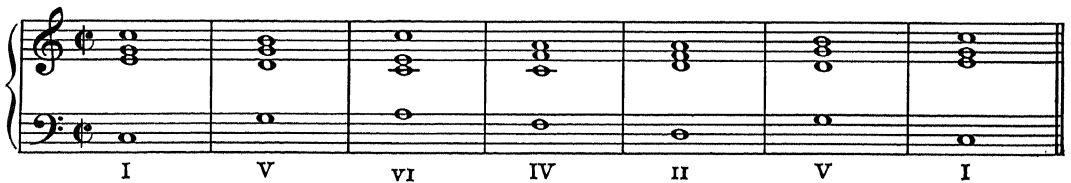


The Roman numeral system is used for numbering the degrees. Small size Roman numerals should be used for minor chords; large ones should be used for majors.

The reader should memorize the degrees of the scale in every key, as we are going to show later, in the chapter on Harmony, what degree of the scale each chord is placed upon.

Following is an example of some major and minor chords with the correct Roman numerals written beneath the bass notes.

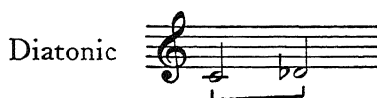
Ex. 3



It is now important that we learn exactly what we are doing when we move from one tone to another. There are separate names for each progression and a definite spelling of the tone (whether sharp, flat or natural) goes along with each one as will be shown.

A tone that is raised either a whole tone or a half tone from one degree to the next is called a Diatonic Progression. (In this case, the note actually moves either up or down to another note.)

Ex. 4



A tone that is raised in the **same** degree of the scale is called a Chromatic Progression. (In this case, the note remains on the same degree of the scale, but is raised in pitch by the addition of an accidental.)

Ex. 5



It is apparent that these two progressions have the same sound. We can write this same sounding progression one more way:

Ex. 6



This is called an Enharmonic Progression. (This progression can be either Chromatic or Diatonic.)

If a tone moves **more** than one degree it is called a “skip” or “jump.”

Ex. 7



The reader will readily see that if we have the following progression written for three instruments:

Ex. 8



It would be entirely wrong to write the second chord with a C sharp for the lower voice instead of a D flat, for the simple reason that in moving to the second chord,

we are progressing diatonically to an entirely new chord (B-flat Minor) which contains a D-flat. In the next measure, it resolves smoothly and naturally back to the original chord, F major.

If it were written with a C-sharp, we readily see that the tone has been raised chromatically; and the voice should continue upward to the tone "D," instead of coming back down. A good rule to quote at this point which explains the above is "When a tone is raised chromatically, it should progress in that direction to its destination. When it is **lowered** chromatically, it should progress in **that** direction to its destination."

Thus to write the before mentioned progression using C-sharp instead of D-flat, we write it correctly like this:

Ex. 9



There would be no reason for writing either of these progressions enharmonically, but if we were in a very awkward key such as the following:

Ex. 10



It would look much easier written like this:

Ex. 11



We call this an enharmonic relation. In the chapter covering modulation, enharmonic writing will be shown to be quite useful.

INTERVALS

The distance between two tones is called an "Interval."

The practical use of intervals is applied later in writing duets and trios, building chords and making their resolutions.

The reader should be able to recognize the *sound* of every interval. This can be accomplished by playing all of the intervals on the Piano until their respective sounds are deeply implanted in his mind.

Following is a table of all the intervals:

Ex. 12

Perfect Primes		Augmented Primes	
			
Major Seconds	Minor Seconds	Augmented Seconds	Diminished Seconds
			
Major Thirds	Minor Thirds	Augmented Thirds	Diminished Thirds
			
Perfect Fourths		Augmented Fourths	Diminished Fourths
			
Perfect Fifths		Augmented Fifths	Diminished Fifths
			
Major Sixths	Minor Sixths	Augmented Sixths	Diminished Sixths
			
Major Sevenths	Minor Sevenths	Augmented Sevenths	Diminished Sevenths
			
Perfect Octaves		Augmented Octaves	Diminished Octaves
			

The perfect intervals (fourths, fifths, octaves and primes) can only be augmented or diminished. They are *never* major or minor.

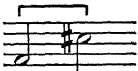
INVERSION OF THE INTERVALS



By inverting an interval, we mean "turning it upside down" in such a way that the note that was **above** originally is now **underneath** and vice-versa.

All intervals, except perfect primes, fourths, fifths and octaves, become their opposites in the inversion. In other words a major interval becomes minor, an augmented becomes diminished, a diminished becomes augmented, but a perfect interval remains perfect.



For example, a major second becomes a minor seventh in the inversion.

Ex. 13  becomes 

An augmented fifth  becomes a diminished fourth in the inversion.

 Of course the intervals can be inverted this way also  that

is, either note can remain unchanged.

A perfect fifth  becomes a perfect fourth in the inversion, 

and so on.

The reader should practice writing all of the intervals and their inversions. A thorough knowledge of intervals and inversions will be a great aid in making transpositions for the various instruments in the dance orchestra.

MINOR SCALES

Each major scale contains three relative minor scales:

- (1) Harmonic minor scale.
- (2) Melodic minor scale.
- (3) Natural minor scale.

The starting point for every minor scale is a minor third down from the tonic of its relative major scale.

The harmonic minor scale is formed by raising the seventh degree one half tone chromatically, ascending and descending alike. See Example 14.

Ex. 14

Major Scale 

Harmonic Minor Scale 

7th degree raised chromatically.

The melodic minor scale is formed by raising the **sixth** and **seventh** degrees in ascending and lowering these two degrees to their original positions in descending. See Example 15.

Ex. 15

Major Scale	
Melodic Minor Scale	

The natural minor scale is formed by neither raising or lowering any of its tones. This scale has the same number of accidentals as its relative major scale.

Ex. 16

Major Scale	
Natural Minor Scale	

The student should practice writing the major scale and its three relative minor scales in every key up to seven sharps or the Key of C sharp and seven flats or the Key of C flat. He will find that he can always begin on the 5th degree to start the next key in sharps. (See chart.)

To go into flat keys we start on the fourth degree to find the next flat key. (See chart.)

This system can be carried on through every key.

CHART SHOWING THE SUCCESSION OF KEYS IN SHARPS

CHART SHOWING THE SUCCESSION OF KEYS IN FLATS



CHAPTER VI

HARMONY

The reader should have a piece of manuscript paper at hand as he studies this chapter, in order to work out the respective exercises. This is especially important because Harmony can only be mastered by actual practice. The mere memorizing of rules for writing Harmony will be of no use if the student cannot apply them in making arrangements.

This chapter will begin with the study of Triads; showing how they are constructed and written correctly. We will then study the Dominant Seventh chord, the Dominant Ninth, the Diminished Seventh, Secondary Sevenths, Secondary Ninths, Secondary Elevenths and Thirteenth, Passing Tones and Suspensions, Neighboring Tones and the Whole Tone Scale. Each of these subjects will be explained along with examples and exercises. The rules given for writing triads and resolving chords should be memorized and applied as much as possible, later, when an actual arrangement is made. It is also very important for the student to master each subject in the study of Harmony, before passing on to the next.

The mistake commonly made by beginners in writing Harmony, is in the constructing of Bass parts. If the Bass part is weak it will, in many instances, seriously impair the desired effect. For this reason, we will study Bass writing along with the other parts.

A systematic study of the chords, their resolutions and rules for writing Harmony should develop the ear of the student to a point where he will be able to recognize mistakes in voice leading and resolving that would not be detected by an untrained ear.

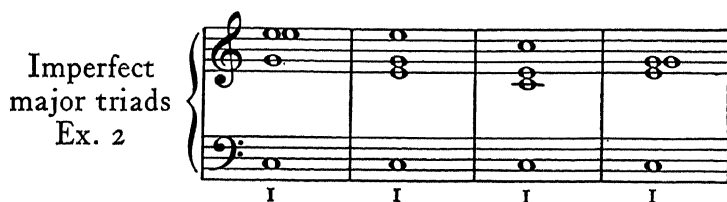
MAJOR AND MINOR TRIADS

A "perfect" Major triad consists of a **major third**, a **perfect fifth**, and an **octave** from the Bass.

Ex. 1



If one of the tones is eliminated from a perfect triad and doubled with one of the remaining tones, or is written an octave higher or lower with one of them, the triad becomes imperfect.



In making dance arrangements, we use the perfect triads in most instances; consequently, we will not spend much time on the imperfect triads.

In order to form a minor triad, we merely lower the third of a major triad one half tone. For example, to make the triads in Ex. 1 minor, the third, E, is lowered one half tone **chromatically** to E-flat. The two triads in Ex. 1 are then written:



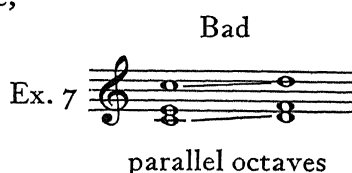
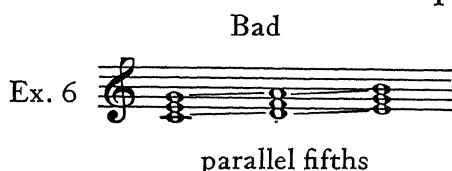
Therefore, it will be seen that the **third** determines whether the triad is major or minor. It is the most important interval and **should never be omitted in a triad**. (The fifth is the least important.) In writing triads, the distance between any of the upper voices should not be more than one octave.



There are a number of rules for writing triads. These rules are the result of years of experience on the part of the greatest musicians that have ever lived. Therefore, they cannot be ignored. However, if the arranger desires some effect that can be obtained in no other way than by breaking one of the rules of harmony, he may do so at his own discretion. However, the breaking of rules promiscuously is inexcusable and shows a definite lack of training.

The first rule to be learned is: "Parallel fifths and parallel octaves should be avoided between any of the voices."

For example,



The rule regarding parallel octaves does not mean that a melody can not be reinforced an octave lower for the duration of a complete phrase. This is done very often in both dance and classical music. The rule simply means that one of the **harmony parts** should not move in parallel octaves with any other part. Writing a bass part in parallel octaves with the melody is particularly bad and should **never** be done except when the entire orchestra is executing some passage in unison. When the bass part is very important, it can be reinforced with some instrument, such as a Trombone or Baritone Saxophone, in the same way as the melody can be reinforced. This practice is perfectly correct, and is done very often.

In writing Triads, Roman numerals denoting the degree of the scale that each bass note occupies, should be written below the bass part in every exercise.

Example 8 shows a simple bass part harmonized correctly. It will be noted that no parallel fifths or octaves appear between any of the voices.

Ex. 8

I V VI IV II V I

It will be seen by studying the above exercise how smoothly each part flows. In fact each part is a melody in itself. This is something we should strive for in making dance arrangements; that is, smooth, flowing, melodic, harmony parts.

In writing triads, the melody or top part of the chords, should flow smoothly and freely. Contrary motion between the Bass and the melody should be used as much as possible. However, the Bass in parallel motion with the melody or one of the harmony parts in thirds is very strong and can be used very effectively. For example.

Ex. 9

Bass and melody or harmony part in thirds.
(Commonly called tenths)

Two fifths are permissible in Harmony if one is perfect and the other is augmented or diminished.

Ex. 10

Permissible

Perfect Fifth Diminished Fifth

Fifths are correct if they occur in the same chord.

Ex. 11

Correct

A sixth can be added to a major or minor triad.

Ex. 12

I I I I I I I

Major triads with added sixth

Minor triads with added sixths

An added sixth produces a pleasing effect if it is not used too often.

These are the most important rules for writing triads. They should be remembered whenever any form of harmony is written, such as in Piano parts, Guitar parts, string harmony parts, Saxophone harmony parts or Brass harmony parts. There are more rules, such as open fifths and octaves, hidden fifths and octaves, that will not be taken up in this book. If more detailed instruction is desired, there are many books covering the study of Harmony alone, to which the reader may refer.

INVERSIONS OF THE TRIAD

The triad has two inversions:—

1. With the **third** in the bass, the inversion is called a “sixth chord.”
2. With the **fifth** in the bass, this inversion is called a “six-four chord.”

These inversions are very important and are frequently used.

In writing a sixth chord, the **third** of the triad, or bass note, is usually left out of the upper voices and one of the two remaining voices is doubled either on the same degree or an octave higher. Sixth chords are very beautiful, especially in minor.

Ex. 13

Ex. 13 shows six chords in a grand staff. The first four are major triads and sixth chords, and the last two are minor triads and sixth chords.

Chord	Triad	Inversion
I	(Major triad)	
I	(6th chord)	
I	(6th chord)	
I	(6th chord)	
I	(Minor triad)	
I	(6th chord minor)	

Sixth chords can be written on any degree of the scale. For example, in the key of C, sixth chords can be written as follows:

Ex. 14

Ex. 14 shows seventh chords on all seven degrees of the C major scale. The first four are major triads and sixth chords, and the last three are minor triads and sixth chords.

Chord	Triad	Inversion
I	triad	
I	6th chord	
II	triad	
II	6th etc. chord	
III	triad	
III	6th etc. chord	
IV	triad	
IV	6th etc. chord	
V	triad	
V	6th etc. chord	
VI	triad	
VI	6th etc. chord	
VII	triad	

In the first measure we have a major triad on the 1st degree and a sixth chord on the 1st degree (the **third**, E, in the bass does not alter the fact that the **root** of the chord, C, is still on the first degree; therefore, it is called a “first degree sixth chord.”

In writing sixth chords, a small figure six is written above the bass note, as in the above example.

The following example illustrates the sixth chord as it could be used in an interlude or modulation of a dance arrangement:

Ex. 15

C I F I G V I

The reason for this chord being called a "sixth chord" is that the highest interval from the bass is a sixth. For example.

Ex. 16.

6th 6th 6th

The sixth chords shown in Example 14 should be played on the Piano in order that the reader may familiarize himself with their sound.

SIX-FOUR CHORDS

A six-four chord (with the fifth in the bass) is principally used on the first, fourth and fifth degrees of the scale. Therefore, in the key of C, the six-four chords most often used are.

Ex. 17.

$\frac{6}{4}$ $\frac{6}{4}$ $\frac{6}{4}$

I IV V

The first degree six-four chord is often used at the end of a composition. For example.

Ex. 18.

I VI IV II I V I

It will be observed that the six-four chord in Example 18 follows the second degree. This is done very often; the second degree leading to the first degree root position, usually being a poor progression.

The six-four chord is indicated by a $\frac{6}{4}$ placed above the bass note. See examples above.

THE DOMINANT SEVENTH

This chord is built upon the fifth degree of the scale. Therefore, in the key of C, we build the Dominant Seventh chord on the fifth degree of C, which is the tone "G." This seventh chord (called on Guitar or Banjo parts a "G 7th") belongs to the key of C.

A Dominant Seventh chord, in its perfect form, is built by adding a major third, a perfect fifth and a minor seventh, up from the root. It is indicated by a small figure 7 beside the Roman numeral. For example.

EX. 1

Key of C Dom. 7th (Perfect)	Key of F Dom. 7th (Perfect)	Key of G Dom. 7th (Perfect)
V_7 V_7 V_7	V_7 V_7 V_7	V_7 V_7 V_7

The **regular** resolution of a perfect Dominant Seventh is as follows:

The bass moves to the first degree, or tonic, the 7th moves down diatonically, the third moves up diatonically and the fifth can go up or down diatonically. For example, the first group of Dominant Seventh chords illustrated in the foregoing example would be resolved as follows.

EX. 2

V_7 I I	V_7 I I	V_7 I I	V_7 I I
(a)	(b)	(a)	(b)
V_7 I I		V_7 I I	
(a)		(b)	

Either examples "a" or "b" are correct. It will be observed that the resolution is made in both instances to either a major or minor triad. This will hold good in resolving all Dominant Seventh chords.

The reader will also note that the fifth "G" has been added to the resolution, this tone being held over from the bass note. An appropriate instrument to play this part would be a Trombone. In such a case, his part would double the bass on the first bar and in holding the tone through to the second bar, would then become a fifth with the bass.

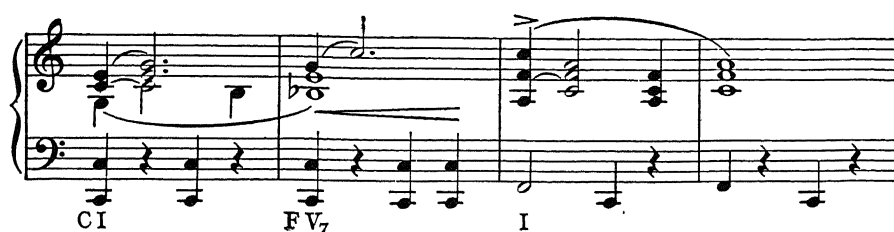
Exercise:

Make perfect Dominant Seventh chords in all of the keys (they can be found by referring to the chart on page 28). Then resolve them according to the rules given herewith. They should then be played on the Piano, the reader carefully observing the sound of the chords and voice-leading.

We should train ourselves to become so familiar with these resolutions that we will be able to visualize in our mind exactly how they sound by looking at them on paper. This applies equally to all resolutions and should be borne in mind at all times while we are studying harmony.

The following example illustrates the Dominant Seventh chord as it could be used in an arrangement:

Ex. 3



Let us now proceed to the formation of **Imperfect** Dominant Sevenths and their resolution.

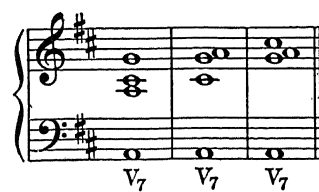
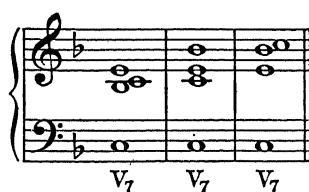
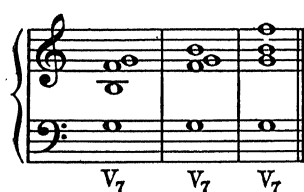
An **Imperfect** Dominant Seventh contains a major third, a minor seventh and an octave from the root. For example:

Ex. 4

Key of C

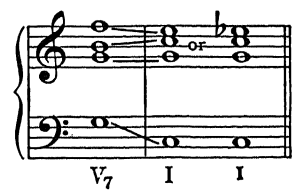
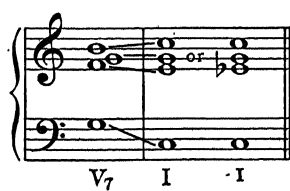
Key of F

Key of D



The **regular** resolution of an Imperfect Dominant Seventh chord is the same as that of the **Perfect** Dominant Seventh, except that now we have no fifth to resolve, but in its place an octave with the root in the upper voice which remains stationary in the resolution. For example:

Ex. 5



The first position of the Dominant Seventh chord in the example is not a good position, because there is no movement to the upper voice in resolving the chord. Therefore, the last two resolutions are to be preferred.

Exercise—Make Imperfect Dominant Seventh chords in all the keys and resolve them according to the rules. Then play them on the Piano and observe their sound.

The following examples of Piano parts for a dance arrangement will show the practical application of all the rules that we have studied in the resolution of Dominant Seventh chords.

Ex. 6 Bad (poor resolving)



Ex. 7 Good (proper resolving)



Note that in Example 6 the **third**, B, and the **fifth**, G, in the first bar do not lead, but jump to the following **seventh** in the second bar, making bad progression. In the third bar of the same example the **seventh** moves up and in the fourth bar, there is no reason for jumping all of the voices up to this position of the seventh. These mistakes are corrected by resolving the chords as in Example 7.

Ex. 8 Bad



Ex. 9 Good



Ex. 10 Bad



Ex. 11 Good



In Example 8, the root of the chord is missing in the first half of the second bar. This is corrected in Example 9.

In Example 10, there are a number of mistakes; the worst of which is parallel octaves between the bass and upper voice. In the second half of both bars, we have no root and in the first half of the second bar, we have doubled the sixth chord in

the bass and upper voice. All of these mistakes weaken the progression and will seriously impair the whole effect.

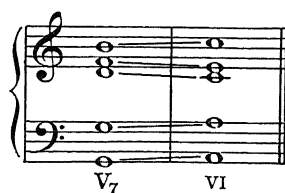
There are three more resolutions for the Dominant Seventh: First, to the Sixth degree, major or minor; second, to the Fourth degree, major or minor, and, third, to a First degree Sixth chord, major or minor. These resolutions do not sound well in every position of the chord, so only the best sounding positions will be shown.

Their use is left to the individual taste of the arranger. He will, no doubt, find many applications for these resolutions as he is working out introductions, modulations, interludes, etc. They are especially effective when the resolution comes as a surprise.

SIXTH DEGREE, MAJOR OR MINOR

The sixth degree of major scale of C is the tone "A." Therefore, to resolve the Dominant Seventh in the key of C to the sixth degree **major**, we write it as follows:

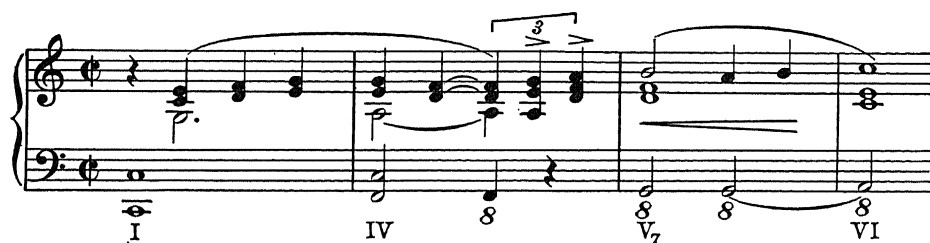
Ex. 12



The fact that the chord of the resolution is A **minor** does not alter the fact that we resolved it to the sixth degree of the C **major** scale.

The following example shows the resolution to the sixth degree **major** as it could be used in an interlude or modulation.

Ex. 13



Now, if we recall our minor scales, it will be remembered that A-flat is the sixth degree in both the enharmonic and natural minor scales of C minor. There is also an E-flat on the third degree. So, in resolving to the sixth degree **minor**, these alterations are made and written in this way:

Ex. 14



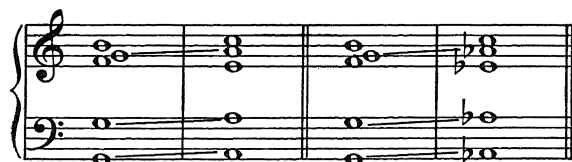
This resolution is very beautiful because the change is so unexpected. It will be observed that an octave has been written in the bass in these examples. We will do this in every instance from now on as it is used quite frequently in the making of Piano parts.

We cannot go to the sixth degree from an **Imperfect** Dominant Seventh chord because we will have parallel octaves between the bass and one of the upper voices. For example:

Ex. 15

Not good

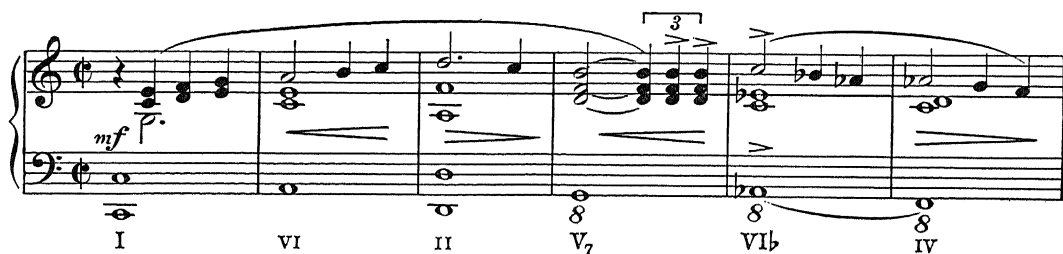
Not good



Exercise—Resolve the Dominant Seventh chord to the sixth degree, both major and minor, in every key. Then play them on the Piano and carefully observe the sound of the resolutions.

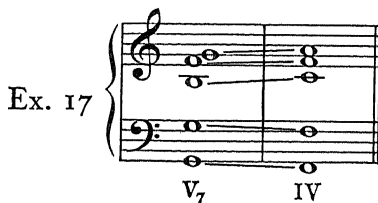
The following example shows the resolution to the sixth degree **minor** as it could be used in an interlude or modulation.

Ex. 16

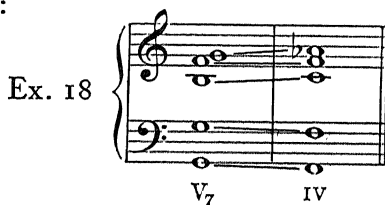


Fourth Degree, Major or Minor

The fourth degree of the major scale of C is the tone, F. Therefore, to resolve the Dominant Seventh in the key of C to the fourth degree major, it is written as follows:



To resolve the Dominant Seventh to the fourth degree minor (which is more pleasing to the ear than major), the third is lowered chromatically in the resolution one half tone. For example:



These are the best sounding positions for these resolutions.

Exercise—Resolve the Dominant Seventh chord to the fourth degree, both major and minor, in every key. Then play these resolutions on the Piano observing their sound.

Resolution to a Sixth chord on the first degree, major and minor.

The best sounding position of this resolution follows:

Ex. 19

V₇ I₆

In this resolution, it is permissible to go up with the seventh in order to avoid doubling the bass note in the upper voices. The contrary motion in the bass part compensates for the upward leading of the seventh.

Exercise—Resolve the Dominant Seventh chord to a first degree Sixth chord major and minor, in every key. Then play them on the Piano observing their sound as before.

SEQUENCE OF SEVENTHS

A Dominant Seventh can be resolved to another Dominant Seventh by leading the seventh of one chord to the third of the next. The third of the first mentioned chord will also lead to the seventh of the next. A sequence of sevenths can then be taken through all of the keys. If the sevenths are resolved correctly, they will alternate with each other; one being perfect, the following one being imperfect.

Ex. 20

Triad Perf.7 Imperf.7 Perf.7

X Enharmonic

INVERSIONS OF THE DOMINANT SEVENTH

All of the rules that have been learned for resolving the Dominant Seventh chord hold good when inversions of the chord are made. For example:

Key of C

Ex. 21

V₇ I I

Root position

Ex. 23

V₇ I I

1st inversion,
3rd in bass

Ex. 24

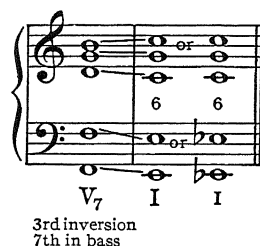
V₇ I I

2nd inversion,
5th in bass

Ex. 25



Ex. 26



Note that the third moves up, the fifth moves up or down and the seventh moves down the same as it did in the root position resolutions. In an inversion, the bass note is usually omitted in the upper voices.

The arranger will find that by moving the bass **diatonically** either up or down, it will suggest many inversions. For example:

Ex. 27



In constructing bass parts such as the one in the above exercise, the bass should move in the direction in which it was started, either up or down, until the progression is finished. Moving the bass backward in the middle of a progression, seriously weakens the bass part. Repeating the same note twice is also detrimental to a bass progression.

Ex. 28



This rule applies only to bass progressions that are started in one definite direction, either chromatically or diatonically.

THE DOMINANT NINTH

This chord is also built on the fifth degree of the scale. Therefore, in the key of C, we build the Dominant Ninth chord on the fifth degree of C, which is the tone "G." This Ninth chord (called on Guitar or Banjo parts a "G 9th") belongs to the key of C.

A Dominant Ninth chord is built by adding a **major third**, a **minor seventh** and a **ninth**, up from the root. It is indicated by a small figure nine beside the Roman Numeral. For example:

Ex. 1

Key of C Key of F Key of G

V₉ V₉ V₉ V₉ V₉ V₉ V₉ V₉ V₉

It will be observed that the **fifth** is left out of the Dominant Ninth in four part writing. If we add a fifth part of harmony to the chord, the **fifth** can then be added. It usually sounds best placed down near the bass note, but can be the melody note or one of the upper voices (see examples).

Ex. 2

5th in melody

V₉ V₉

5th near bass note

Ex. 3

5th in upper voices

V₉ V₉ V₉

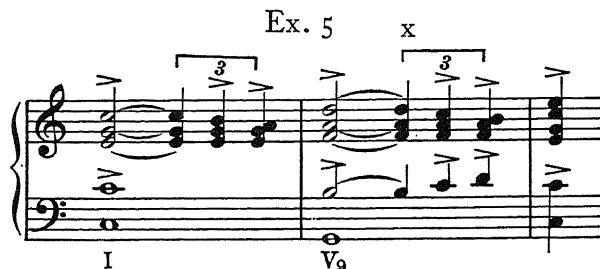
The resolution of the Dominant Ninth is as follows: The **ninth** moves down diatonically and all the rest of the tones move in the same way as they do in the Dominant Seventh chord. For example, the first group of Dominant Ninth chords illustrated in Fig. 1, would be resolved as follows:

Ex. 4

V₉ I I V₉ I I V₉ I I

The following example shows the Dominant Ninth as it could be used in an introduction, interlude or ending of an arrangement. (Note the voice leading of

the third, B, in the ninth chord at x. The liberty of jumping the last third, B, of the ninth chord was taken in order to provide a brilliant finish.)



The **ninth** may be major or minor. When it is minor it belongs to the minor key. However, it can be resolved also to a major triad.

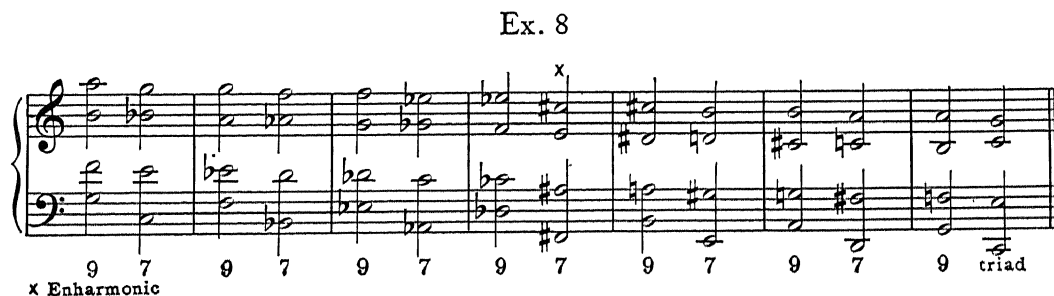
The **ninth** should be a good distance away from the root especially in minor. Below are some examples of minor ninths and their resolutions.



The Dominant Ninth can also be resolved to a Dominant Seventh, for example:



This resolution provides us with a Sequence of Ninths and Sevenths that takes us through all of the keys. For example:







The above Sequence should be played on the Piano, the reader observing the keys through which it passes.

INVERSIONS OF THE DOMINANT NINTH

All of the rules hold good when we resolve an inversion of the Ninth chord. Extreme care must be taken in writing the ninth in a good position, when it is used in the inverted form. The following positions are the best sounding ones, together with their resolutions:

Ex. 9

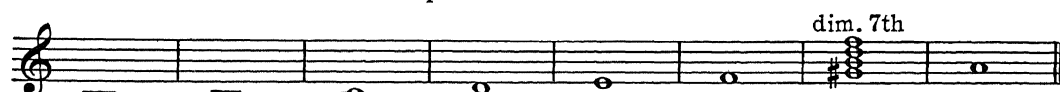
1st inversion 3rd in bass	2nd inversion 7th in bass	3rd inversion 9th in bass	3rd inversion
			
		a	b

The ninth chord in the third inversion (9th in the bass) can be resolved as shown either in Example a or b.

Like the Dominant Seventh chord inversions, the bass note is usually omitted in the upper voices in any inversion of the Dominant Ninth.

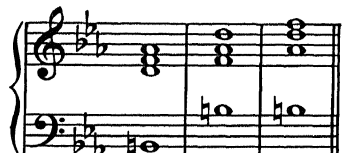
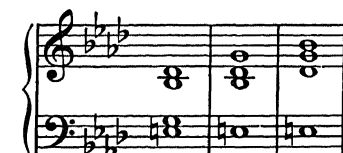

THE DIMINISHED SEVENTH

This chord is the most flexible of all the chords. It is built on the **seventh** degree of the harmonic minor scale. Therefore, in the key of C (the relative minor being "A"), the Diminished Seventh is built on the note "G#" or the seventh degree of the A minor scale. For example:



a

The Diminished chord is built by adding three minor thirds up from the root. For example:

Key of E \flat (C minor)	Key of A \flat (F minor)	Key of B \flat (G minor)
		
VII VII VII	VII VII VII	VII VII VII

(The bass note is usually omitted in the upper voices.)

RESOLUTION

The resolution of the Diminished Seventh is as follows: The root moves up, third can go up or down, fifth moves down and the seventh moves down. All of these resolutions progress diatonically. The resolution can be made to either a major or minor triad.

The following examples show the resolutions for the first group of Diminished Sevenths:

1

2

3

a b a b a b

Either examples "a" or "b" are correct, but the "a" examples are usually to be preferred because the resolution is to a perfect triad and does not require doubling any of the voices.

Exercise—Make Diminished Seventh chords in all of the keys, then resolve them according to the rules given herewith. After this has been done, they should be played on the Piano, the reader carefully observing their sound.

All of the tones in the Diminished Seventh chord resolve in the same way, in all three inversions of the chord, as they do in the root position. In other words, if the third is in the bass, it can go up or down; if the fifth is in the bass, it should come down, or if the seventh is in the bass, it should also come down. Note that all of these resolutions are exactly the same as they are when occurring in the upper voices. For example:

Key of E-flat root position

1st inversion, third in Bass (two resolutions)

2

1

2

VII I I VII I I VII I I

2nd inversion (5th in Bass) 3rd inversion (7th in Bass)

VII I I VII I I

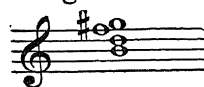
Note that the third moves up or down, (except in resolving to a sixth chord) the fifth moves down and the seventh moves down, the same as they do in the root position.

The following example shows how the Diminished Seventh chord could be used in an interlude of a dance arrangement.



Many times a Diminished chord will be in such a position as will tend to confuse the student in determining where the root of the chord lies. If he will remember that the chord is built by **minor thirds**, it will be the key to finding the root of the

chord. For example, in the following Diminished Seventh:



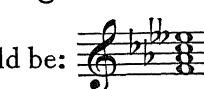
know B is not the root, as minor thirds up from B would be



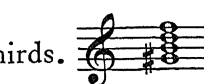
know D is not the root, because minor thirds up from D would be



we know F is not the root because minor thirds up from F would be:



so G# is the root, as the spelling of the chords makes minor thirds.



Therefore it would be called a G# Diminished Seventh. This system will be useful in determining the root of all Diminished chords.

Any note of a Diminished Seventh chord can be called the root of the chord, but the spelling in the chord will be different in every case as the above examples indicate.

Resolutions other than the regular ones given here for resolving the Dominant Seventh, Dominant Ninth and Diminished Seventh chords, can be made providing the voices are led smoothly and naturally and rules for writing triads are not broken.

SECONDARY SEVENTH CHORDS

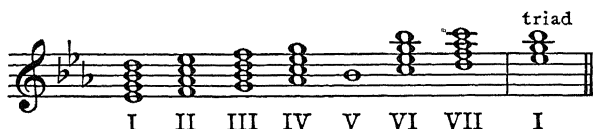
We now take up a very fascinating subject in Harmony—Secondary Seventh chords. These chords are built on each degree of the scale except the fifth. For example, our major scale of C is:



Secondary Sevenths, built upon each degree, except the fifth, would then be written as follows:



It will be observed that in the above chords, no flats or sharps are used. This is because we are in the key of C. In the key of E-flat, the tones that are flatted in the key signature would then be written flat in the Secondary chords, and so on. For example, Secondary Sevenths in the key of E-flat would be written:



The fifth degree is not used because the regular Dominant Seventh is built on that degree.

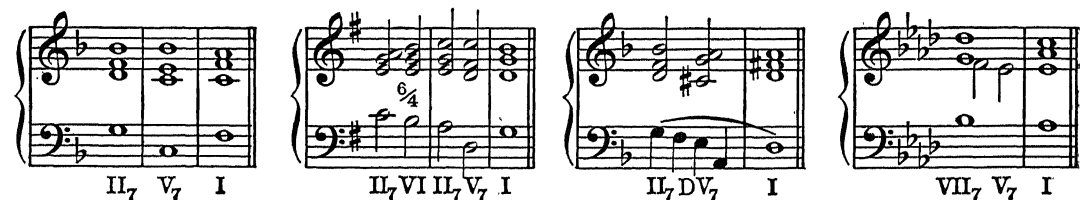
Secondary Sevenths are major if the third is major, and they are minor if the third is minor.

Therefore the **third** of the chord determines whether the chord is major or minor.

There are no special resolutions for Secondary Sevenths. Resolving these chords is left to the individual. However, the regular rules of Harmony regarding parallel octaves, parallel fifths, etc., should be observed.

Below are some resolutions taken at random. Many others will, no doubt, suggest themselves to the arranger.

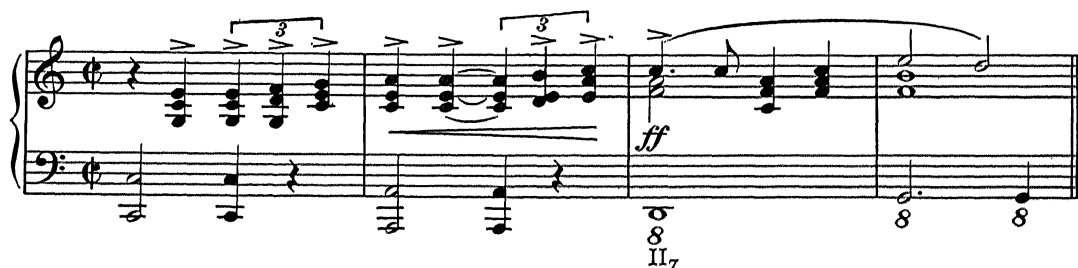
Ex. 4



Exercise—Write Secondary Sevenths in all of the keys; then work out some original resolutions.

The following example shows a Secondary Seventh chord as it could be used in an interlude of a dance arrangement.

Ex. 5

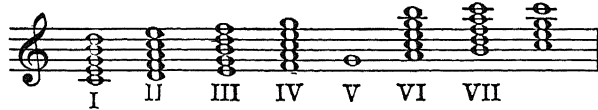


SECONDARY NINTH CHORDS

Secondary Ninth chords are considered in the same way as Secondary Sevenths except for the addition of a ninth to the Secondary Seventh chord.

The following example shows our C major scale with Secondary Ninths built upon each degree except the fifth.

Ex. 6



By playing these Secondary Ninths on the Piano, one will readily see that some of them do not sound particularly well in their original form. To correct this, some of the tones can be eliminated from the chord, thereby improving its sound. For example:

Ex. 7



(Secondary Ninth with Seventh eliminated.)

Ex. 8



(Secondary Ninth with Seventh eliminated.)

Extreme care must be exercised in using all the Secondary chords, especially the Ninths, Elevenths and Thirteenth. They are very effective when used in an appropriate place and with a good position of the chord. Good taste and good judgment will prove to be very valuable assets in writing Secondaries.

There are no special rules for resolving Secondary Ninths. Like Secondary Sevenths, this is left to the individual. The reader should practice resolving Secondary Sevenths and Ninths written on every degree of the scale, except the Fifth, in at least six different keys.

SECONDARY ELEVENTHS AND THIRTEENTHS

These chords can be built on **any** degree of the scale.

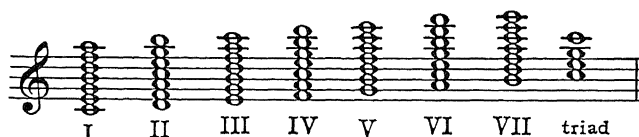
The Interval of an Eleventh is found by counting up eleven tones from the root.

A Thirteenth is found by counting up thirteen tones from the root, beginning with the root as the first tone.

Therefore, to find an Eleventh with C as the root, count up eleven tones from C, which will be F. Likewise, to find the Thirteenth with C as the root, count up thirteen tones from C which will be A.

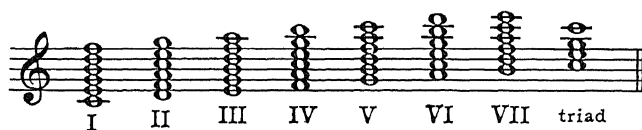
Now to build the **Secondary Eleventh Chord**, we use any Secondary Ninth chord previously studied and make it into a Secondary Eleventh chord by adding the interval of an Eleventh. The scale of C with Secondary Elevenths built upon each degree will then be written as follows:

Ex. 9



To build a secondary Thirteenth, we add the interval of a Thirteenth to the Eleventh chord just described. A scale of Secondary Thirteenth in the key of C is written as follows.

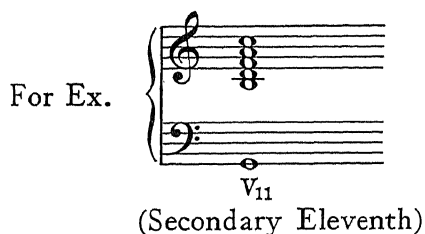
Ex. 10



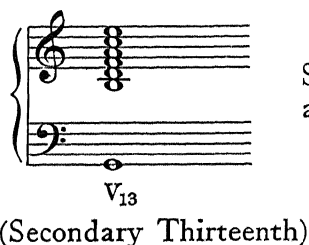
Any of the tones but the **Tonic** and **Eleventh** can be eliminated in writing Secondary Elevenths.

Any of the tones but the **Tonic** and **Thirteenth** can be eliminated in writing Secondary Thirteenths.

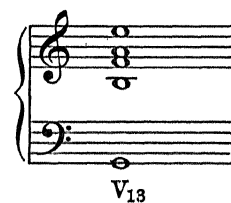
An interesting point comes up at this time. In writing Triads, Dominant Sevenths, Dominant Ninths, Diminished Sevenths and Secondary Sevenths we **always** use the Third. In fact, these chords are not even considered as **being** a chord without the Third. But in Secondary Elevenths and Thirteenths, the chord often sounds far better **without** the Third.



Sounds better without the Third written this way



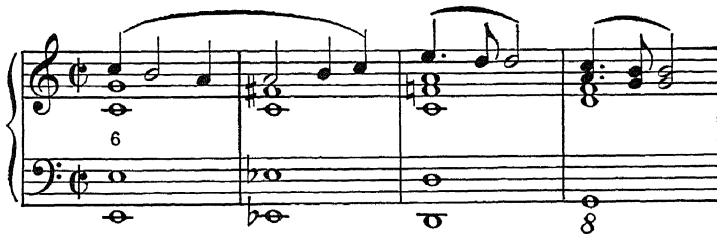
Sounds better without the Fifth and Eleventh written this way



The possibilities for using Secondary chords are unlimited.

The following example shows a Secondary Ninth and a Secondary Eleventh chord that could be used in an interlude of a dance arrangement. Note the smoothness of voice leading from the Diminished Seventh to the Secondary Ninth. (It is apparent that this is not the regular resolution of a Diminished Seventh chord.)

Ex. 9



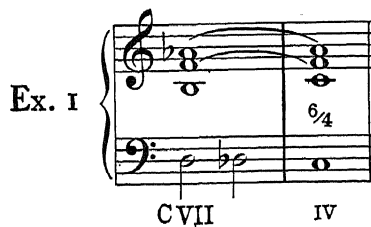
ALTERATIONS

By alterations, we mean the raising or lowering of one or more tones in a chord **chromatically**. (An alteration can not be diatonic.) Every chord that we have studied can be altered in some way.

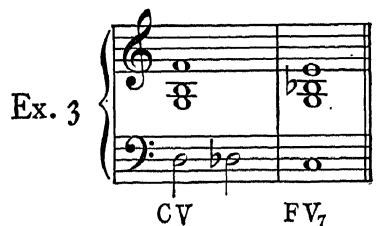
Following are a number of examples of alterations. Only the most important have been included. Note that whenever a tone is altered upward, (\sharp) it moves on up; when the alteration is made downward, (\flat), the tone moves on down.

These are the most important alterations. The reader should familiarize himself with their sound by playing them on the Piano until he can recognize the sound of the chord by seeing it on paper.

Altered Third downward in Diminished Seventh.



Altered Fifth downward in a Dominant Seventh.



Altered Fifth upward in a Major Triad.

Ex. 4

CI IV

Ex. 5

CI VII₇

Altered Fifth upward in a Dominant Seventh.

Ex. 6

FV₇ I

Altered Fifth downward in a Secondary Seventh.

Ex. 7

CII₇

Altered Fifth upward and Ninth downward in a Dominant Ninth.

Ex. 8

CV₉ I

Altered Bass downward and Third from Bass both upward and downward in a Sixth chord.

Ex. 9

CI. II₇

An alteration of one or more tones in a Secondary Seventh, Ninth or Eleventh is very effective. For example:

(Altered Ninth in a Secondary Eleventh chord)

Ex. 10

V₁₁

Example 11 shows an altered diminished chord (F-sharp diminished with the third lowered to A-flat), and an altered Dominant Seventh (D 7th with fifth lowered to A-flat).

Ex. 11

*The Lights Are Low

By Cliff Friend and Carmen Lombardo



*Copyright 1934, by M. Witmark & Sons

PASSING TONES AND SUSPENSIONS

A Passing Tone is a note moving through a chord diatonically. It may start on a note of the chord and end on another note of the same chord; the notes in between these being foreign to the chord.



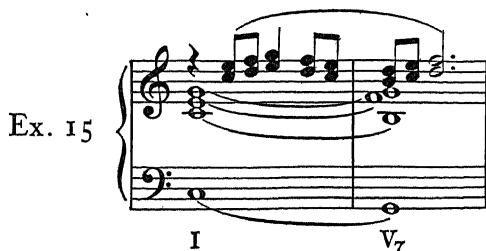
Passing tones can also end on another chord:



Notes that "skip" are not passing tones.



Passing tones can be written in either thirds or sixths.



SUSPENSIONS

The resolution of any note in a chord may be held up until after the remainder of the chord has resolved and **then** the note can be resolved, making what we call a "Suspension."

Ex. 1

CV₇ I

If the resolution of two notes is held up, it is called a "Double Suspension."

Ex. 2

CV₇ I

If the resolution of three notes is held up, it is called a "Triple Suspension."

Ex. 3

CV₉ I

Suspensions are very effective when they are used in an ending of an arrangement See Example 4.

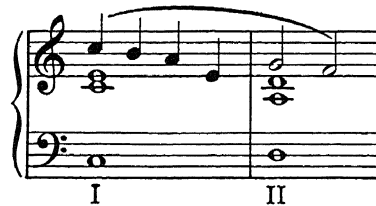
Ex. 4

suspension

Note the alteration occurring in the fourth beat of the second bar making a **double** alteration on this chord. (Fifth raised and Ninth lowered.)

NEIGHBORING NOTES

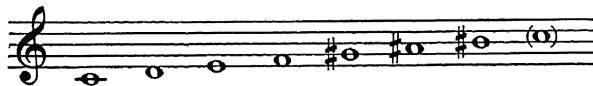
A Neighboring note is foreign to a chord, but is a “neighbor” of a note belonging to the chord.



In the above example, the note G (first half note in second bar) is a neighboring note to the third of the D minor chord.

THE WHOLE TONE SCALE

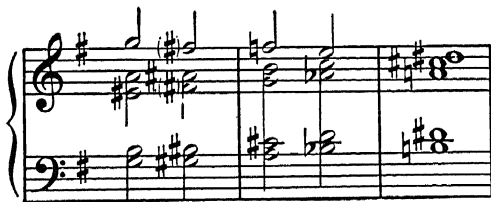
As its name implies, this scale is built of whole tones up from the Tonic.



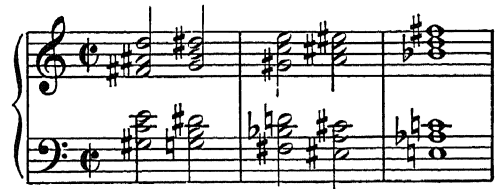
Many unusual chord progressions can be made by combining different notes of the whole tone scale and progressing with them in contrary motion. However, this practice tends to become monotonous if done very often.

Following are examples of chord progressions based on the whole tone scale:

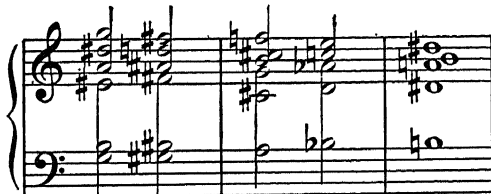
Ex. 1



Ex. 2



Ex. 3



Ex. 4



This concludes the chapter on Harmony. Only the most important points have been covered. If more detailed instruction is desired, a good Harmony teacher should be engaged. However, the reader should have a general knowledge of the subject, if he has carefully absorbed all that is in this chapter. The extent to which he will be able to apply Harmony to the art of arranging, will depend upon his own individuality and creative ability.

CHAPTER VII

CONSTRUCTING PIANO PARTS

The reader should have little trouble constructing Piano parts provided he follows a few simple rules that will be given here. He should, however, be thoroughly acquainted with all of the chords in the chapter on Harmony before attempting to write a dance Piano part.

(1) Analyze the harmony of a four bar phrase in the composition about to be arranged. Each chord can be analyzed by first, finding the root of the chord; then determining the inversion in which the chord has been used (what note is in the bass); and, finally, recognizing the name of the chord by the remaining notes.

(2) Determine the best sounding "starting" position for the chord in relation to the melody. (The highest note of the chord should be, preferably, a **third** or a **sixth**—either of them major or minor, and lower than the melody.) The melody note or an octave beneath it may be written as the top note of the chord if it will improve the general leading of the part.

(3) Determine the type of rhythm that will be appropriate for the particular composition that is being arranged, and decide what kind of a bass part will be suitable. (Refer to chapter describing rhythm for the Piano.)

(4) The part should now be started and the chords resolved in a natural, smooth manner keeping in mind all the rules for resolving chords. Each four bar phrase should be finished before proceeding to the next.

Ex. 1 shows four bars of a typical song copy.

Ex. 1



By analyzing the harmony in the above example, we find that the first bar is made up of an F major chord, the second bar is the Dominant Seventh with the **fifth** in the bass, the third bar F major again and the fourth bar the Dominant Seventh with the **third** in the bass.

The best sounding starting position for the first bar is a minor third beneath the melody or the tone "A."

The type of rhythm that will be appropriate for this particular melody is four beats to the bar in the right hand and two beats in the left. The reason for deciding upon this rhythm is that the composition is of a smooth, flowing character that suggests a simple rhythm rather than a complicated one.

Resolving the chords according to the rules of Harmony, Ex. 2 shows the same four bars completed for a dance Piano part.

Ex. 2



It should be remembered that the Piano part in a dance orchestration is required to include only the **basic harmony** of the composition. Passing tones that are in the brass, Saxophone or string parts, need not be written in the dance Piano part if they tend to make it so difficult that strict rhythm cannot be maintained. In place of writing passing tones, the fundamental chord through which they pass can be written.

Song Piano Copy



Dance Piano Part



PART II

CHAPTER I

DUET AND TRIO WRITING

After studying all of the chords and their respective resolutions, we are ready to begin the writing of actual parts for the instruments in the dance orchestra. Since duets and trios are the simplest form of harmony writing, they will be taken up first.

DUET WRITING

There are several fundamental rules to remember in writing duet parts, regardless of what instruments are to be used in the duet.

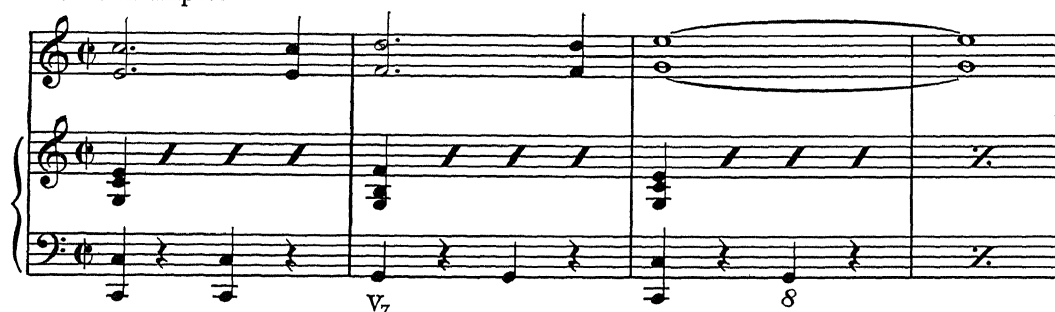
Thirds and **sixths** are the best sounding intervals for duet writing.

Perfect fourths and **fifths** should be avoided as much as possible. They can be used in passing between **thirds** and **sixths** or vice versa, but should not be held for any length of time.

Major seconds can be used, but should not be held long. The same rule applies to **augmented** or **diminished** fourths and fifths.

In writing the duet or second harmony part, the rules for resolving chords should be kept in mind and put into effect whenever possible. (There are times when the rules for resolving chords cannot be observed, such as when the duet part is following the melody in sixths, progressing upward. This second part will often contain the seventh of the chord moving upward, which is contrary to the rule, but sounds pleasing in duet or trio writing.)

For example:



Awkward jumps should be avoided at all times in the second part. The part should move smoothly and freely, following the melody in regard to phrasing. The expression marks for the duet should be, as nearly as possible, the same as they appear in the melody.

Example 1 shows a simple melody with a Piano part as it would be made for a regular dance arrangement. (If a wind instrument player executes this melody, he will take a breath at the end of the second bar.)

Ex. I



We will now write the second or duet part to the above melody. The Piano may be used if the arranger is doubtful about the sound of some of the intervals. Example 2 shows the same melody as in Example 1, but with the duet added.

Ex. 2

Example 2 is a musical score for piano. It consists of three staves. The top two staves are for the melody and duet, both marked *mf*. The bottom staff is for the piano accompaniment, marked *mp*. The melody is in 4/4 time and consists of four measures. The duet part follows the melody in sixths. The piano accompaniment consists of a series of chords, some of which are marked with a slash, indicating they are to be played as chords.

(Note that the breathing will be identical for both parts.)

In analyzing the above duet, we readily see the reason for starting the duet harmony part a **sixth** lower than the melody rather than a **third** lower. In starting a **sixth** lower, we can make the duet harmony part follow the melody in **sixths** for the entire first measure, moving in the same manner as the melody.

In the third bar, A is the best sounding harmony note, it being the resolution of the augmented **fifth**, G-sharp, in the bar preceding it. It will also be observed that the A is held, instead of imitating the phrasing of the melody.

Ex. 3

Example 3 is a musical score for piano. It consists of two staves. The top staff is for the melody, and the bottom staff is for the duet part. The melody is in 4/4 time and consists of four measures. The duet part follows the melody in sixths. The piano accompaniment consists of a series of chords, some of which are marked with a slash, indicating they are to be played as chords.

The repeating of the same note in *legato* passages, as in Example 3, does not sound as smoothly as holding the harmony note while the melody alone moves. This difference in phrasing is not noticeable to the ear. However, "hot" trios should always be written with the harmony instruments phrased exactly the same way as the melody.

Some melodies are more adaptable to duets than others. If a melody does not seem to lend itself to duet writing, it should be used as a trio or solo. After making several duets, the reader will be able to determine whether or not a melody will make a good duet by mentally visualizing how well it can be harmonized in pleasing duet intervals. Always remember that **thirds** or **sixths** are the best intervals for duets.

TRIO WRITING

After a duet has been written, it can be made into a trio by merely adding a third harmony part to the duet. This part should also be phrased, as much as possible, the same as the duet.

The third part cannot be expected to move as smoothly as the second part. However, if the third part is required to make a very awkward jump or bad progression, it is better to change the second part slightly if it will improve the leading of the third part. The third part can be written either above or below the second part.

Example 4 shows the same duet with a third part added, making it a trio.

Ex. 4

In the above example it was not necessary to make any change in the second part, the third part being free from awkward jumps.

Example 5 shows a different type of melody.

Ex. 5

(Note the appropriate type of rhythm that has been employed for the Piano part)

Example 6 shows the same melody written in duet form:

Ex. 6

This example makes a very effective duet since it can be written almost entirely

in thirds. Two muted Trumpets would be appropriate for this duet, as they are very much "in character" when used in *staccato* passages.

Example 7 shows the same melody written with the third part added, making it a trio.

Ex. 7

DUETS AND TRIOS FOR THE SAXOPHONES

All that has been said about duets or trios, applies in a general way to any family of instruments that might be used. However, there are a few points to be taken into consideration that apply to the groups of instruments individually.

In writing Saxophone duets, the B-flat Tenor Saxophone is the instrument that plays the second part, the 1st E-flat Alto Saxophone playing the first part. It is well to keep in mind the fact that the Tenor is a larger instrument than the Alto, and that its extreme high register from about B-flat on up to F is quite thin and biting in quality. If this register is used, in either duets or trios, the Tenor Saxophone can very easily predominate over the 1st Alto. Therefore, in writing a Tenor duet part, it is more desirable to keep the Tenor Saxophone on the lower harmony part, provided this part consists of well-sounding intervals.

For example, suppose we have the following melody which we wish to write for a Saxophone duet:

Ex. 8

The lower part in this case is the logical one to write for the Tenor:

Ex. 9

Ex. 9 is a musical score for a piano arrangement. It consists of two staves for the melody and a grand staff for the piano accompaniment. The melody is written in a key with one sharp (F#) and a common time signature. The first staff of the melody is marked *mf* and the second staff is also marked *mf*. The piano accompaniment is marked *p* and features a rhythmic pattern of eighth notes in the right hand and quarter notes in the left hand. The score is divided into four measures, with the melody spanning across them.

These two parts have been written in “concert key” so they must be transposed to the correct keys before they can be played on the instruments. (Refer to Chapter on Saxophones.) Let us now write the duet, making the transpositions by following the rules in the Saxophone chapter. This is the way Saxophones are written in the score of any arrangement.

Ex. 10

Ex. 10 is a musical score for a saxophone duet and piano accompaniment. It features three staves: the first staff is for the 1st E♭ Alto, the second staff is for the 2nd B♭ Tenor, and the third staff is for the Piano. The 1st E♭ Alto and 2nd B♭ Tenor parts are both marked *mf* and feature a melody that spans across four measures. The Piano part is marked *p* and features a rhythmic pattern of eighth notes in the right hand and quarter notes in the left hand. The score is divided into four measures, with the melody spanning across them.

Saxophone duets can also be written for Tenor and Baritone. In this case either the Tenor or Baritone can play the melody. When the melody has been given to the Baritone, the Tenor can play the harmony part above the melody.

Now, let us add the 3d E-flat Alto Saxophone, and convert the above Duet into a Trio. See Example 11.

Ex. II

1st E \flat Alto

2d B \flat Tenor

3d E \flat Alto

Piano

In the above example, the Third Alto has a wrong resolution from the standpoint of strict harmony, when it moves from G-sharp to E. (G-sharp is the **third** of the **Dominant Seventh** chord and is supposed to move upward.) In this case, however, the Third Alto would double with the melody if it were resolved correctly. This would sound quite unbalanced and would not be as good as resolving the interval incorrectly. It might be well to state here that the only time Saxophones or any other instruments in Trio form should ever be doubled on the same note is in writing a **sixth** chord. Even then, if the voice leading is considerably improved by doubling the bass note, it is better to do so.

Saxophone Trios can also be written for Tenor Saxophone and two Baritones. Either the Tenor can be given the melody, with the two Baritones playing Harmony beneath it; or the 1st Baritone can be given the melody with the Tenor on the Duet Harmony part **above** the melody and the other Baritone on the **third** harmony part **below** the melody.

DUETS AND TRIOS FOR THE BRASS

The best combination for Duets in the Brass Section is two Trumpets. They lend themselves very nicely to melodies of either a *staccato* or *legato* nature. A Trumpet and Trombone may be used for a Duet. The range of the Trombone part will have to be taken into consideration, however, as it is very liable to go too high.

Turning back to Example 6, page 74, we see a Duet that will sound well on two Trumpets.

Now, if we wish to make a Brass Trio out of this Duet, we have something else to take into consideration. In attempting to add the Trombone, or third part to the Duet, we notice that the Trombone is taken up to high B-flat in several places.

Ex. 12

1st B♭ Trumpet *mf*

2d B♭ Trumpet *mf*

Trombone *mf*

Piano *p*

This note is possible for some Trombonists to play, but for many it is too high. This can be corrected by writing the Brass in open harmony in the places where the Trombone part goes too high.

By "open harmony," we mean writing the harmony part that (in close harmony) lies directly beneath the melody an octave lower. In writing open harmony for the Brass, the lowest note is always given to the Trombone. For example:

Written in open harmony would be:

Written in score form, the chord would be:

Ex. 13

Close Harmony

1st Trumpet

2d Trumpet

Trombone

Ex. 14

Open Harmony

1st Trumpet

2d Trumpet

Trombone

The parts should flow smoothly and freely. Awkward jumps in either part should be avoided at all times.

Our exercise will now be written as follows, using both open and close position harmony:

Ex. 15

1st Trumpet

2d Trumpet

Trombone

mf

The Brass will usually sound better, however, in close position harmony for trios whenever the Trombone can be kept in a good range. Open harmony is often used for the Brass in ensemble choruses as will be explained in detail later.

Close harmony is always better for Saxophones and Strings unless a special color effect is desired that can only be obtained by open harmony.

DUETS AND TRIOS FOR VIOLINS

All that was said in the beginning of this chapter about duets and trios applies to the String Section. Here we need have no worries about the range of the second or third parts as we must have in the Brass or Saxophones. Therefore, Violin duet and trio writing is somewhat simpler and easier to grasp.

Violin duets and trios are usually written in the high register. Here the Strings have more carrying power and stand out above the Rhythm Section and Saxophones if they are combined with a Saxophone trio, which is often done.

The duet, or second part, is very often written on the same staff beneath the 1st Violin part and marked *divisi* (div.), which means that the two players reading off the same sheet each takes a separate part. One will play the melody while the other plays the duet harmony part. This duet part should be written preferably close to the melody, but always on pleasing intervals and in a flowing manner. However, sixths can be written with good results if the close harmony part is not a good sounding interval.

Below is an example of a Violin duet:

Ex. 16


1st Violin

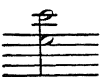

Piano

mf

p

div.

Note that the **fifth** is used in passing between the **third**  in the first

bar and the **sixth**  in the second bar. The use of this **fifth** 

provides a smooth path between these two pleasing intervals. Although the **fifth** is not a well-sounding interval in itself, it is not held long enough to be noticeable.

The following example shows the same duet as before with a third part added to it making it a trio.

Ex. 17



A & B
1st Violins
C
Piano

If the reader will apply the ideas and suggestions given in this chapter on duet and trio writing, he should have no trouble after a little practice.

Remember these three main rules: First, use pleasing intervals as much as possible for the duet part. Second, avoid awkward jumps in both the second and third parts—the second part particularly should be written in an easy, flowing manner. Third, resolve all intervals correctly as often as possible.

It is a good idea to begin at once making a few Saxophone, String and Brass trios of simple melodies before attempting to score a whole arrangement.

CHAPTER II

SCORING

The first thing to do in actually making an arrangement is to lay out the score, allowing either six or eight bars to the page. Only in compositions containing an unusual number of notes to the bar, will six bars to the page be needed.

If standard score paper is not available, ordinary twelve line manuscript paper can be used. The names of all the instruments used in the arrangement should then be written to the left of the staves on each page.

Fig. 1 shows a good plan for a score sheet:

Fig. 1

1st E \flat Alto
Saxophone

2nd B \flat Tenor
Saxophone

3rd E \flat Alto
Saxophone

1st B \flat Trumpet

2nd B \flat Trumpet

Trombone

1st Violin

Bass

Drums

Guitar

Piano

After ruling the score paper, let us determine how fast we want the arrangement played. There are a number of ways that the correct tempo can be indicated, such as: Slow Fox Trot, Slowly with Expression, Slow Blues Tempo, Slow and Swingy, Slowly and Smoothly, Not Too Slow, Not Too Fast, Moderato, Medium Tempo, Bright Medium Tempo, Brightly, Fast Tempo, Fast Ride Tempo. (It will be observed that many of these markings indicate the proper **phrasing** as well as tempo of the number.)

Their use is very important, as the orchestra must beat off the correct tempo in playing the arrangement. Otherwise, many of our carefully planned ideas will be spoiled.

After we have written the tempo marking on the upper left hand corner of the score, let us decide in what key we wish to start the arrangement. This will depend largely upon the range of the melody and what instrument or instruments are to carry it. As a rule, flat keys are to be preferred to sharp keys for the sake of the B-flat instruments (Trumpets, Clarinets and Tenor Saxophone.) They can play much easier in flats than in sharps. However, Alto Saxophonists are accustomed to sharps and they do not mind them. The Violin is easier to play in sharps than in flats. Therefore, the range of the melody is really the main factor in determining the first key. A good rule is to select a key that will not take the Trumpet above

his G. () So F Concert () should be the top limit of the melody

for our first chorus. The key signature should now be written for the concert key instruments and then the proper signature for the transposing instruments.

The first thing to write down is the melody of the introduction. This should be written in whichever staff or staves represents the instruments that we wish to play this melody. The harmony parts can then be added, the more important one being written first and the less important being left until last. The Piano part should then be added, followed by the Baritone, Brass and Drums.

Sometimes it may be easier to make the Piano part as soon as the melody is written down. The first mentioned way, however, is to be preferred because the Piano part should be made to conform with the harmony that is written in the Brass, Saxophone and String parts.

In writing the respective parts on the score, care should be exercised to align the notes in each bar directly beneath each other.

We can now proceed to score the first chorus. It is always good to score in four bar phrases—first melody, then harmony parts, then rhythm. Remember to finish one four-bar phrase before proceeding to the next. Any figures or fill-ins should be left until the whole chorus is finished; they can then be added in one final review of the chorus.

DYNAMICS AND PHRASING

Here are two very important items that we must not overlook in scoring our arrangement. By **Dynamics**, we mean all forms of expression marks that convey to the instrumentalist the correct intensity with which a note or notes should be played. Following the Introduction will be found a list of Dynamics. Their proper use will largely determine whether the arrangement will sound as you have planned it in your mind. Dynamics should be used as much as possible. If this is done, nothing will be left to chance or guess-work upon the part of the players.

It is also very important that an instrument playing either a melody or harmony part should phrase the part in such a way as to interpret it correctly. If a part is poorly phrased it immediately loses all of its real meaning and significance. Moreover, an orchestral effect can be completely ruined if the phrasing is not indicated on the part by the proper marks or Dynamics. A little study of the page devoted to Dynamics will be amply rewarded in results later on.

The following example, Figure 2, shows a "sweet," *legato* phrasing of a melody and two harmony parts. The instruments playing them could be either Saxophones, Brass or Violins (playing 8va).



Now, suppose we wish to have this melody interpreted in a *marcato* type of phrasing, such as we would use in a last ensemble chorus. Figure 3 shows the correct use of Dynamics for such an interpretation.



Note the difference in writing the two harmony parts necessitated by this type of phrasing.

VOICING OF INSTRUMENTS

Now that we are about to begin work on a regular arrangement, let us learn how to voice all of the instruments. Up to this point, we have only voiced Duets and Trios. We will now show, by means of examples, all types of Ensemble voicing. Different chords will be shown, voiced in such a way as will produce proper balance. For simplicity's sake, the chords will be shown in concert key.

Ex. 1

Brilliant

Not as brilliant
as "a" but well
balanced

More round in
tone color on
account of
lower distribu-
tion of Saxo-
phones

Brilliant and
also has depth
on account of
using Baritone

Ex. 2

(Same chord
as Ex. 1, but
with third on
top)

Brilliant

Brilliant but
more round

Round

Very round

Ex. 3

(Same chord as Exs. 1
and 2 but with octave
of root on top)

Full

Not quite as full as
"a" but very solid

Ex. 4

(First degree with
chord)

Full

Not as full as "a"
but good

Ex. 5

Ex. 6

The musical notation for Ex. 6 shows two chord voicings for a band ensemble. The first section, labeled V_9 Dominant Ninth, shows two positions of the chord. The second section, labeled VII Diminished Seventh, shows one position. The instruments and their parts are labeled as follows:

- 1st Alto**: First staff in each section.
- 3rd Alto**: Second staff in each section.
- 1st Trpt.**: Third staff in each section.
- 2nd Trpt.**: Fourth staff in each section.
- Tenor**: Fifth staff in each section.
- Tromb.**: Sixth staff in each section.
- Bass**: Seventh staff in each section.

(Note that the Tenor Saxophone is written an octave lower than the 1st Trumpet in a great many of these positions. This is a very practical voicing as we use Tenor an octave lower than melody often in ensemble writing.)

It will be observed that the color of the instruments individually contribute to the general effect of the chord. In other words, low register Alto and Tenor Saxophones or Baritones (all having round tone color) add this color to the chord in which they are voiced.

Voicing of special color effects will be taken up in detail in the next chapter.

CHAPTER III

STARTING AN ARRANGEMENT; SUGGESTIONS FOR ROUTINES

Planning the routine is the first step in making the score of an arrangement.

Several routines are suggested that the writer has found to be effective. The arranger will no doubt later see possibilities for routines other than those given here. It will be a good idea to use one of the following routines for the first few arrangements. Later on, original routines can be tried out.

ROUTINE I

Introduction.

1st Chorus: Ensemble for first 16 bars.

Saxophone trio for 8 bars.

Ensemble for last 6 bars.

1st ending.

2d Chorus: Saxophone trio.

(vocal)

Brass figures.

Modulation to Verse.

Verse: (One tone or one tone and a half lower than original key.)

Special Chorus: (In same key as verse.)

Modulation to last chorus.

Last Chorus: (One half tone or one tone higher than first chorus.)

Ensemble for first 16 bars.

Change of color such as unison Saxophones or Trombone solo, next 8 bars.

Ensemble for last 6 bars.

Ending.

ROUTINE 2

Introduction.

1st Chorus: Unison or special color effect for first 16 bars.

Saxophone trio for 8 bars.

Ensemble for last 6 bars.

First ending.

Modulation to Verse.

Verse: (One tone or one tone and a half either higher or lower than first chorus).

2nd Chorus: Saxophone trio.

(vocal)

Brass figures.

3rd Chorus: Trumpet or Trombone solo, or special effect.

Modulation to half a chorus for last chorus.

Last Chorus: 16 bars, ensemble.

Ending.

ROUTINE 3

Introduction.

1st Chorus: Trumpet solo for first 16 bars.

Saxophone trio for 8 bars.

Trumpet solo for last 6 bars.

First ending.

2nd Chorus: Saxophone trio.

(vocal)

Brass figures.

Modulation to Special Chorus.

Special Chorus: (One tone or one tone and a half lower than first chorus.)

Modulation to last chorus.

Last Chorus: (One half tone or one tone higher than first chorus.)

First 16 bars, ensemble.

Next 8 bars, change of color such as unison Saxophones and Strings.

Last 6 bars, ensemble.

Ending.

(The routines listed above are all for compositions of the usual type of chorus, having the first phrase of 8 bars length, second phrase of 8 bars practically the same as the first phrase, next 8 bars containing a new theme, last phrase of 6 bars similar to first phrase, and two-bar first ending.)

These routines need not be followed exactly as outlined. Many variations of the routines shown here will suggest themselves as different compositions are arranged. This will be particularly true of melodies that either do not have the usual number of bars, or are not made up of 8 bar phrases.

CHAPTER IV

THE INTRODUCTION

After having selected the routine that will best fit the composition, the next step is to make an introduction. The **mood** and **character** of the composition being arranged should decide the type of introduction which is most appropriate. Its real purpose is to prepare us for the melody that appears in the first chorus. Four types of introductions and examples of their use follow:

1. Vamp Introductions
2. Concerted Introductions
3. Solo Introductions
4. Concerted combined with Solo Introductions.

VAMP INTRODUCTIONS

A Vamp Introduction is good for starting a tune containing some form of trick rhythm. The trick can then be used for the theme of the introduction. A definite color, such as a muted solo Trumpet, unison Clarinets, etc., is very good for the first chorus after a Vamp Introduction. (See Ex. 1, next page.)

CONCERTED INTRODUCTIONS

A Concerted Introduction is written in ensemble form and, because of its great flexibility, is used more than either the Vamp type or the Solo type. The Concerted Introduction is adaptable to either hot or sweet tunes, slow or fast, and since it is written in ensemble form is the surest way of getting the arrangement started "on the right foot."

The theme or melody of a Concerted Introduction can be taken either from some part of the composition being arranged, or it can be an entirely original theme written by the arranger. However, do not make the mistake of using the opening theme of the chorus for the introduction so exactly that the listener is left in doubt just where the introduction ends and the chorus begins. For example:

Not Good



Ex. 3

*Dames

Fast tempo

By Harry Warren and Al Dubin

1st Alto

2nd Tenor

3rd Alto

1st B \flat Trumpet

2nd B \flat Trumpet

Trombone

1st Violin

Bass

Drums

Guitar

Piano

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Note: This introduction is based on the principle of the whole tone scale.

The arranger can usually find a bar or two somewhere in the Verse or Chorus that can be "developed" in the introduction. By the term "developed," we mean carried on and on, using possibly a different harmonization to add interest to it, or repeating the theme in different values of time. For example, suppose we wish to develop the following phrase, making an introduction out of it:



The following example shows this theme after it has been developed and made suitable for an introduction.

Ex. 5



A Solo Introduction is very appropriate for sweet melodies, but can also be used for introducing a hot melody. The solo should be played by an instrument of a different color than is used in the first chorus. This does not necessarily mean that a Trumpet cannot play in the ensemble first chorus after it has played a solo introduction, for the change in color can be accomplished by having the Trumpet play muted or in hat for the introduction. The chorus following should then be open.

In this type of introduction, the theme for the solo may be developed from an original theme, or from some part of the composition, as we do in a Concerted Introduction. Violin, Trumpet, Tenor, Trombone, Piano and Vibraphone are all effective for use in a Solo Introduction.

Ex. 6

*The Man on the Flying Trapeze

Slowly, with expression

1st E♭ Alto *p*

2nd B♭ Tenor *p*

3rd E♭ Alto

1st Trumpet *mf* Solo in hat open

2nd Trumpet

Trombone *mf* Solo in soft hat open

1st Violin *p* div.

Bass *p* pizz. arco

Drums *p* Brushes Vibr.

Guitar *B♭ m7* *dim.* *E♭7*

Piano *p*

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This introduction suggests a "quaint" type of melody to follow it.

Ex. 7

*Boulevard of Broken Dreams

Slowly, with expression

By Harry Warren and Al Dubin

The musical score is arranged in a grand staff format with the following parts from top to bottom:

- 1st Alto:** Treble clef, key of D minor (one sharp), tempo *mp*. Features a melodic line with a triplet of eighth notes in the fifth measure.
- 2nd Tenor:** Treble clef, key of D minor, tempo *mp*. Mirrors the 1st Alto's melody.
- 3rd Alto:** Treble clef, key of D minor, tempo *mp*. Mirrors the 1st Alto's melody.
- 1st B♭ Trumpet:** Treble clef, key of D minor, tempo *mf*. Includes the instruction "Solo In hat" in the first measure and "In hat" in the fourth measure. Features a triplet of eighth notes in the fifth measure.
- 2nd B♭ Trumpet:** Treble clef, key of D minor, tempo *mf*. Mirrors the 1st B♭ Trumpet's melody.
- Trombone:** Bass clef, key of D minor, tempo *mp*. Includes the instruction "In megafone" in the first measure. Features a triplet of eighth notes in the fifth measure.
- 1st Violin:** Treble clef, key of D minor, tempo *mp*. Includes the instruction "div." in the fourth measure. Features a triplet of eighth notes in the fifth measure.
- Bass:** Bass clef, key of D minor, tempo *mp*. Features a steady eighth-note rhythm.
- Drums:** Bass clef, key of D minor, tempo *mp*. Features a steady eighth-note rhythm.
- Guitar:** Treble clef, key of D minor, tempo *mp*. Includes chord symbols: Dm, Dm7, Dm, Fm, Dm, A7, Dm, Gm6, Bb7, and A7. Features a steady eighth-note rhythm.
- Piano:** Grand staff (treble and bass clefs), key of D minor, tempo *mp*. Features a steady eighth-note rhythm.

The score consists of 10 measures. The first four measures establish the counter-melody for the Trombone and Tenor Saxophone. The fifth measure features a climax on the sixth degree of the D minor scale. The final measure shows the effect of parallel fifths between the bass and melody.

*Copyright 1934, by Remick Music Corporation.

Note the counter-melody in the first four bars that is given to the Trombone and Tenor Saxophone in unison. Also note the bass rhythm that is written against the counter-melody, the bass part remaining on the same note. (This is called pedal or organ point. See Page 119, Chapter IX.) In the fifth bar, there is a climax on the sixth degree of the D minor scale. The effect of parallel fifths between the bass and melody leading to the last bar is lessened by the fact that the bass and melody are of such a different type of rhythm from each other.

Our last type, that is "Concerted Combined with Solo Introductions," is, as its name implies, a combination of the Concerted and Solo type of introductions, and has the advantages of both. This type can be constructed by using, for example, one or two bars of Concerted followed by one or two bars of Solo, or vice versa. In this way, we obtain a great degree of contrast combined with the solidness of ensemble. Examples: Ex. 8

*The Very Thought of You

By Ray Noble

Slow, easy swing tempo

1st Alto

2nd Tenor

3rd Alto

1st B♭ Trumpet

2nd B♭ Trumpet

Trombone

1st Violin

Bass

Drums

Guitar

Piano

The above example is a "Concerted Combined with Solo Introduction" combined with a Vamp idea.

If the arranger has difficulty thinking of an idea for the introduction, it may suggest itself after the first chorus has been scored. This practice is perfectly all right. Eight bars should be left blank at the beginning of the score and a line drawn through the unused bars. Occasionally the entire eight bars will be needed to develop the introduction. However, short introductions of four or six bars are to be preferred. In this way the melody of the first chorus is soon reached.

CHAPTER V

THE FIRST CHORUS

The real purpose of a first chorus in any arrangement is to definitely plant the melody as well as the "mood" of the composition. Trick effects or frequent changes of color (Brass to Saxophones, Trumpet solo to Trombone solo, etc.), should not be used in the first chorus, as they tend to confuse the listener with the true nature of the melody. In fact, the listener will, no doubt, be unable to follow the melody if it switches around between different instruments.

The "mood" of the composition should be considered in determining the most appropriate way of scoring the first chorus. The type of melody as well as the lyric should be carefully analyzed before starting the first chorus. If a composer has written a beautiful flowing melody, with a soul-stirring lyric, it is obviously all wrong for the arranger to begin the opening chorus with *staccato* Flute, that should be used on a light rhythmic type of melody. A flowing melody needs an ensemble first chorus or perhaps unison Saxophones with strings in unison Sul G or, if the band has a good Baritone Saxophone soloist, a solo for him might be appropriate. The Brass, playing sustained harmony in hats, could then be used behind the solo.

In writing an ensemble first chorus, the Trombone should be given a counter-melody, if possible. The second Trumpet should then be written on a part that will avoid the same notes that the Trombone is playing whenever possible; but do not make the second Trumpet part too awkward to avoid a double with the Trombone. No harm will be done as long as the second Trumpet does not sustain the doubled note and passes in contrary motion with the Trombone. The Saxophones can be written in trio form for such a chorus, but with the Tenor Saxophone playing melody an octave lower than the first Trumpet. This will add depth to the ensemble and also will reinforce the melody giving us a very full chorus. The two E-flat Alto Saxophones will be written on harmony above the melody, the 1st Alto having the duet or second part and the 3rd Alto, the third part. The Trombone counter-melody should have movement whenever the real melody holds or vice versa, and should be as melodic as possible. Parallel fourths, fifths and octaves should always be avoided between a counter-melody and a melody.

Ex. I

The musical score for Ex. I is written for three parts: 1st Trumpet, Trombone, and Piano. The key signature is one sharp (F#), and the time signature is 4/4. The 1st Trumpet part begins with a forte (f) dynamic and a melodic line that is sustained across the first four measures. The Trombone part also begins with a forte (f) dynamic and provides a counter-melody, featuring a triplet in the first measure. The Piano part provides harmonic support, with the right hand playing chords and the left hand playing a steady bass line. The score is divided into four measures, with the first measure containing a triplet in the Trombone part and a forte (f) dynamic marking in both the Trumpet and Piano parts. The second measure contains a forte (f) dynamic marking in the Trombone part. The third and fourth measures contain eighth notes in the Piano part, marked with an '8' below the staff.

Adding the remainder of the instruments to the above we have:

Ex. 2

1st Alto Sax

Tenor Sax

2nd Alto Sax

1st Bb Trumpet

2nd Bb Trumpet

Trombone

A & B 1st Violin

C

Bass

Drums

Guitar

Piano

Some sort of relief must be given to the ensemble chorus so that it will not grow monotonous. This can be accomplished by giving the middle strain (17th to 24th bar, inclusive) to a Saxophone trio or some other "substantial" form of relief. Then the ensemble may be again used for the concluding six bars and two bar ending. In a composition that does not have the usual form of construction (1st, 8 bar phrase; 2nd, 8 bar repeat phrase; 3rd, new 8 bar middle, 6 bars of first 8 bar phrase for finish) the relief would no doubt have to be written at a different time.

To save time in scoring, the bars that are repeated later in a score can be numbered or lettered (A, B, C, or 1, 2, 3, etc.). These can then be written in the score instead of writing the measures over again. In the final extracting of the score, these bars are copied in full.

If a muted Trumpet solo is used for the first chorus, we need a background of sustained harmony for a "sweet" tune. For a "hot" tune the background may be either rhythmic or sustained. If a rhythmic type of background is used, it should be of a simple form that will not tend to over-accentuate the rhythm behind the solo.

In writing backgrounds, a pleasing interval below the melody (possibly a third or a sixth) should be selected and used as the top voice of the background. This voice should move naturally and smoothly, resolving as correctly as possible, but always keeping it a fair distance below the solo Trumpet. The two harmony parts are written in trio formation to the top voice of the background.

A unison effect, written in the low register of the Saxophone, combined with the String Section on "Sul G" (the entire melody to be played on the G string) is very effective as a first chorus for certain types of melodies. It is obvious that when several instruments are playing in unison, they cannot phrase the melody individually as they would do in playing a solo. On the contrary, they must all play the melody in strict phrasing or exactly as it is written. Consequently, the melodies that are best suited to unison writing are those that do not lose their beauty when played in a strict style of phrasing. It will also be found that a melody well adapted to unison writing does not lose much, if anything, by the absence of harmony parts in the wind or string instruments. In other words, the melody must stand by itself, just as it is required to do when it is used as a unison effect.

In some instances, the effect of a unison passage can be improved by the addition of brass in hats sustaining harmony, or color can be added by using a Vibraphone playing a slow, simple counter-melody. The arranger can, no doubt, create many more effects that will be very good when used along with unison passages.

The substitution of two Baritones for the two Altos in a unison passage, improves the effect and adds depth and volume to the unison. The Baritones can be written an octave lower than the Tenor Saxophone, or they can be placed in exactly the same register. Regardless of the method used, the Saxophones should not be forced to play in either their very high or very low register, as the unison will tend to sound uneven.

Three Clarinets are also effective in unison in the low register. Furthermore, they can be written in octaves when the melody or figuration suggests this treatment. The addition of unison Violins to unison Clarinets adds warmth and color to the effect.

A change of color such as a Trumpet solo, Violin trio, Saxophone trio (if Alto Saxophones are being employed) or anything in a high register should be used when a different theme appears in the unison first chorus. This will prevent the unison effect from becoming monotonous.

In some types of compositions, a Saxophone figure or "answer" can be used to fill in spots where the melody is sustaining. For example:

Ex. 3

*The Very Thought of You

By Ray Noble

Echo

1st Alto

2nd Tenor

3rd Alto

1st B♭ Trumpet

2nd B♭ Trumpet

Trombone

1st Violins

Bass

Drums

Guitar

Piano

*Copyright, 1934, by M. Witmark & Sons.

In Ex. 3, it will be noticed that the Trombone is phrased in the same way as the two Trumpets so that the "answer effect" will not be disturbed by a Trombone movement.

A first ending should then be written that will lead smoothly to the first bar, if we wish to repeat the chorus. The ending can be either one or two bars long, depending upon the construction of the closing phrase of the composition. The average number contains thirty-two bars, including the first ending. Examples of first endings:

Good



(Note the Secondary Thirteenth on the second half of the second bar.)

Not Good



(The melody of this example does not lead to the melody note.)

CHAPTER VI

THE SECOND CHORUS

If the first routine is used, the second chorus is practically a repeat of the first chorus. In most dance orchestras, this chorus is used as a vocal. A Saxophone trio can be written as a background to the vocal. Muted Brass figures may then be added wherever an open spot occurs, thereby giving color to the trio and providing movement where the melody is sustaining. For example:

The musical score is arranged in a system of staves. The instruments and their parts are as follows:

- 1st E \flat Alto:** Melodic line, *mf*.
- 2nd B \flat Tenor:** Melodic line, *mf*.
- 3rd E \flat Alto:** Melodic line, *mf*.
- 1st B \flat Trumpet:** Solotone mute, *mp*.
- 2nd B \flat Trumpet:** Solotone mute, *mp*.
- Trombone:** Solotone mute, *mp*.
- A & B 1st Violin:** Melodic line, *mf*.
- C:** Melodic line, *mf*.
- Bass:** Rhythmic accompaniment, *mf*.
- Drums:** Rhythmic accompaniment, *mf*.
- Guitar:** Chordal accompaniment, *mf*. Chords are marked: C, C+, and Dm.
- Piano:** Chordal accompaniment, *mf*.

The score is written in 4/4 time and features a key signature of one sharp (F#). The melody is sustained across the first three staves, while the brass and strings provide harmonic support and movement. The guitar and piano provide a steady accompaniment.

The rhythm parts may all be repeated for this chorus. The Brass figures are added after all of the chorus is written. These figures should be made to conform to the harmony that appears in the Piano part. (Compare the above brass figures with the Piano part.)

In this chorus the Violins can either play a trio along with the Saxophones, or they can be written in unison on an *obligato*. This type of *obligato* for Violins is very effective, although solo *obligatos* are beautiful if they are phrased with the proper degree of expression by the Violinist. The arranger should mark on the score whether the *obligato* is to be played by a solo Violin or by the section, before writing it. A unison *obligato*, like a unison melody, must be phrased in strict form.

Since an *obligato* is a form of counterpoint, it seems an opportune time to learn a few rules about this subject.

By the term "counterpoint," we mean the writing of a melody that is combined with another given melody. In classical music, counterpoint is sometimes written for as many as eight parts, or, in other words, there are eight separate and distinct melodies being played at the same time. However, in dance music, we usually confine the counterpoint to *obligato* writing. The *obligato* can be played by a Violin, Trumpet, Flute, Clarinet, etc.

The phrases of an *obligato* should be imitated in later phrases just as the phrases of a melody are imitated. *Obligato* and melody writing following this form is referred to as having "good construction."

In writing *obligatos*, it is very important to have the *obligato* hold when the melody moves, and the *obligato* move when the melody holds. For example:

Not good	Good
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">Melody</div> </div> <div style="margin-top: 10px;"> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">Obligato</div> </div> </div>	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">Melody</div> </div> <div style="margin-top: 10px;"> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">Obligato</div> </div> </div>

Parallel fourths or fifths should **never** be written in any form of counterpoint. In writing an *obligato*, awkward "skips" should be avoided as much as possible, the *obligato* leading in a smooth melodic manner.

BACKGROUNDS

It must be admitted that a Saxophone trio is not an especially colorful background to a vocal chorus. Something more interesting can be employed in a special arrangement especially if the Saxophone Section doubles Flutes and Clarinets. Flute figures, played *staccato*, are very effective to fill an open spot where the vocalist is holding a tone—usually occurring at the end of a phrase. Three Flutes can be employed for such an effect, or two Flutes and Clarinet, or one Flute and two Clarinets, depending upon how many of the Saxophonists double Flute. The Flutes should be written in their high register for such an effect. But if two Clarinets are written in harmony with the Flute figure, care should be taken not to take the Clarinets too high. It might be well to consult Chapter III, listing the ranges of the Flute and Clarinet, to refresh our memory a little before writing any Flute or Clarinet figures. On page 106 is an example of a figure that will be effective behind a Vocal Chorus:

The musical score is written for three parts: 3 Flutes, 1st Violin, and piano accompaniment. The key signature has one flat (B-flat), and the time signature is 4/4. The 3 Flutes part consists of three staves, all of which are silent for the first three measures and then play a melodic line starting in the fourth measure, marked *mp*. The 1st Violin part consists of one staff, playing a melodic line in unison with the vocal solo (not shown), marked *mf*. The piano accompaniment consists of two staves (treble and bass clef), playing a rhythmic accompaniment marked *p*. The piano part includes a first ending bracket in the fourth measure.

In the above example, the Violins are written in unison with the vocal solo. This is purely optional.

A counter-melody can be written for Clarinets in unison behind a vocal chorus that will be very effective; also a Flute and Clarinet in octaves produce a beautiful effect when they are used on a counter-melody. Care should be taken, however, to avoid too complicated a counter as it may detract from the vocal chorus rather than add to it.

CHAPTER VII

USE OF SEQUENCES FOR MODULATING TO THE VERSE

Before making the modulation to the Verse, it is a good plan to first determine what sort of an instrumental effect we intend to write in both the verse and special chorus following it. If this is done, we will know what key and combination of instruments will be most appropriate for the ideas we wish to use in the Verse and Special Chorus. We can then select the key into which our modulation must take us.

In making a modulation, several things are very important; the modulation must progress smoothly to the next key; it should be interesting and colorful; it should not be too lengthy; and it should have a pleasing and appropriate melody.

The modulation can begin at the same point in the chorus where the first ending was made (usually on the 31st bar of a 32-bar chorus); or it can be started after the chorus is completely finished. By beginning on the 31st bar, the modulation will then become the second ending.

For a simple modulation, let us use either the Sequence of Sevenths or the Sequence of Ninths and Sevenths to lead us to the next key. These two sequences are both very effective, but precautions should be taken to avoid monotony due to the constant repetition of the same type of chords.

Monotony can be avoided in many ways; such as: 1st, providing movement in one of the harmony voices; 2nd, writing the sequence in rhythmic form; 3rd, using alterations in the bass part, etc. Example of movement in one of the harmony voices:



This Sequence of Ninths and Sevenths modulates from C- to E-flat. It is made interesting by the movement in the harmony voice. It will also be noted that this voice has been suspended or held over into the 2nd and 4th bars, making an added sixth to the seventh chord in both cases. Example of sequence in rhythmic form:



Example with alterations in the bass part:



There is no limit to the number of ways for using sequences in an interesting manner.

The melody for a modulation can be developed from a bar or two in the composition, or it can be composed by the arranger.

It is obvious that a sequence can be carried on until any key is reached. However, if the key to be reached is so remote as to cause the use of a lengthy sequence, we can avoid this by shortening the time value of each chord. For example:



One of the most effective ways to produce contrast in color is making a sudden change from a smooth, flowing type of modulation, introduction or interlude into a hot rhythmic verse or chorus. The effect produced is showy and unexpected.

Other forms of modulating will be taken up in detail in the chapter covering Modulation.

CHAPTER VIII

THE VERSE

There are several methods of scoring the verse. An eight-bar verse can be scored entirely in ensemble; or if it is sixteen bars long, it may be appropriate to divide it between solo instruments of different color such as Trumpet, Trombone or Violin, each instrument playing four bars. Either rhythmic or sustained backgrounds of a different tone color should always be used behind the instrument employed for the solo. A unison effect can sometimes be used in the verse with good results.

Another effective way of scoring the verse is to write it in concerted "hot" style. If the arranger has played "hot" on an instrument, these ideas will come instinctively.

The following example shows eight bars of a verse scored in such a way that a great degree of contrast is obtained. The employment of unisons in both the Saxophones and Brass aid materially in obtaining the effect.

***Congratulate Me**

By Lou Handman and Bob Rothberg

1st E \flat Alto

2nd B \flat Tenor

3rd E \flat Alto

1st B \flat Trumpet

2nd B \flat Trumpet

Trombone

1st Violin

Bass

Drums

Guitar

Piano

f

f

f

unison "marcato"

f

unison "marcato"

f

unison "marcato"

f

div.

f

f

f

f

D \flat B \flat m7 E \flat 7/5 A \flat 7 dim. A \flat 7 E \flat m7 C7 D \flat A \flat 7 A \flat m B \flat 7

1st E♭ Alto

2nd B♭ Tenor

3rd E♭ Alto

1st B♭ Trumpet

2nd B♭ Trumpet

Trombone

1st Violin

Bass

Drums

Guitar

Piano

unison SOLI

mf

sul G unison

mf

8va

loco

L.H.

E♭m B♭ E♭m A♭7 Fm C D♭ E♭m7 A♭7

The musical score is for a dance arrangement in E-flat major (three flats). It features a vocal trio (1st E♭ Alto, 2nd B♭ Tenor, 3rd E♭ Alto) performing a unison SOLI section with a mezzo-forte (*mf*) dynamic. The instrumental ensemble includes two B♭ Trumpets, a Trombone, a 1st Violin (playing sul G), a Bass, Drums, Guitar, and Piano. The guitar part includes a section marked *8va* (octave up) and the piano part includes a section marked *loco* (loco). The score is divided into four measures. The first measure shows the vocalists entering with a unison SOLI line. The second measure shows the instrumental ensemble joining in. The third measure shows the vocalists continuing their unison line. The fourth measure shows the instrumental ensemble continuing their accompaniment. The guitar part includes a section marked *8va* (octave up) and the piano part includes a section marked *loco* (loco). The score is divided into four measures. The first measure shows the vocalists entering with a unison SOLI line. The second measure shows the instrumental ensemble joining in. The third measure shows the vocalists continuing their unison line. The fourth measure shows the instrumental ensemble continuing their accompaniment.

Note the importance of the dynamics in bringing about the desired effect in this example.

CHAPTER IX

THE SPECIAL CHORUS

In this chorus, the originality of the arranger is more evident than in any other part of the orchestration. Here is where he can employ color, trick effects, different harmonizations, or unusual counterpoint to make the composition still more attractive and pleasing to the ear.

In scoring the special chorus, the melody can be changed from one color to another more often than in previous choruses as the listener is familiar with the melody by this time. However, it is not a good policy to switch the melody from one instrument to another frequently, even in this chorus for the purpose of obtaining color. Four bar phrases between different instruments can sometimes be used, but eight bar phrases are preferable. In any event, the change in color should be decisive. A Trombone solo followed by unison Saxophones is not an effective variation since both are classified as belonging to the "round" tone color group. To obtain a good contrast in color, a low instrument should always be followed by a high one and vice versa.

In some melodies the **background** can be changed from one color to another in four bar phrases, the melody remaining on the same instrument for eight bars. For example, let us suppose that we have written the melody as a Trumpet solo for eight bars. The background could then be played by low Baritones sustaining harmony for the first four bars, which will be very round in tone color. For the next four bars, the color can be changed in the background to Violins playing *pizz*, or sustained, which in either event will be piercing in tone color.

The melody should be scored so that it will predominate above the background. For example, the marking can be: melody—**mf**, background—**p**; melody—**f**, background—**mf**; *obligato*—**mp**, sustained background **p**; etc.

There is no limit to the number of color combinations or trick effects that can be used in the special chorus. New melodies will suggest different treatments. The following examples show the voicing of a number of special color effects. The type of melody being arranged will determine the sort of color combination that the arranger decides is most appropriate.

1. Muted Trumpet solo.

a. Violins in sustained harmony above the Trumpet.



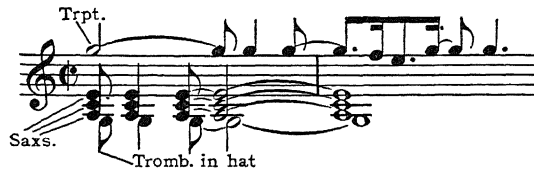
b. Clarinets in harmony below the Trumpet.



c. "Hot" Saxophone background behind Trumpet playing "swingy."

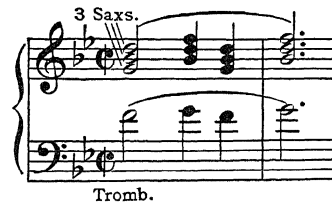


d. Saxophones and Trombone in Hat in four part harmony behind a Trumpet solo.



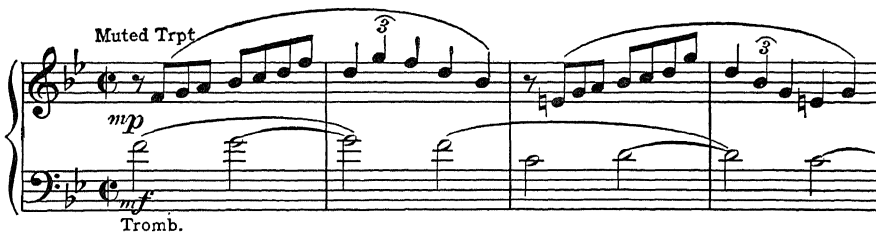
2. Trombone solo (in megaphone, soft hat or open).

a. Saxophones in harmony above Trombone solo.

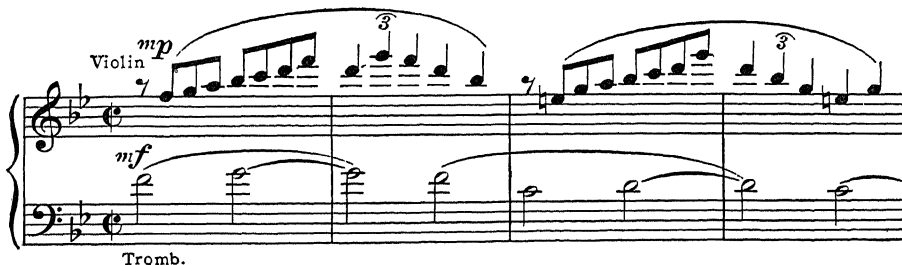


(Note—A Trombone solo should always be written in the upper register of the instrument, such as in the above example).

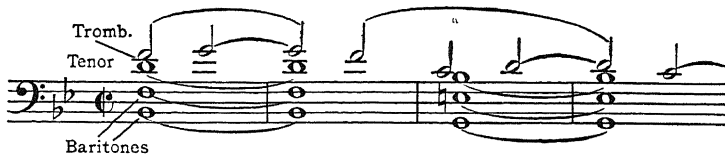
b. With muted Trumpet *obligato*. (Saxophones should be sustained beneath the Trombone in this example and the one following.)



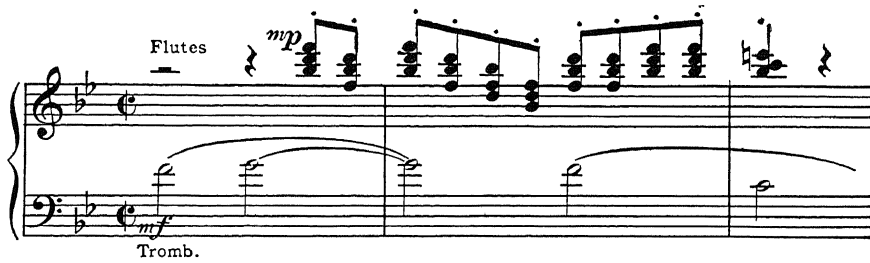
c. With Violin *obligato*.



d. Baritones and Tenor sustained below Trombone.



e. With Flute figures.



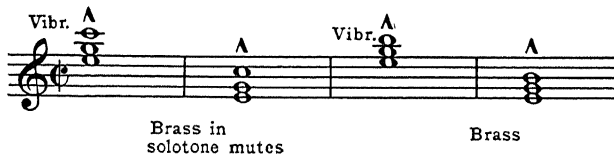
3. Tenor solo.

Two Clarinets and Trumpet in solotone mute on melodic type of background.



4. Using Vibraphone for color effects.

a. Brass answering Vibraphone chords.



b. The Vibraphone on counter-melodies is very effective if the notes do not "ring through."



The following type of counter-melody is not good because the notes "ring" into each other.



Not Good

c. The Vibraphone is very good for filling open spots such as the following:



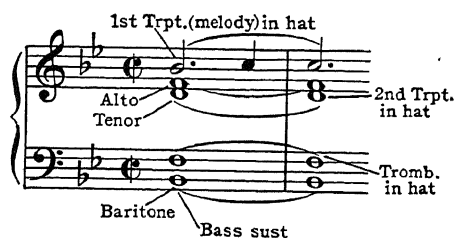
5. Guitar effect orchestrated in Saxophones.

See Example of "Carry Me Back to Old Virginny" on following page.

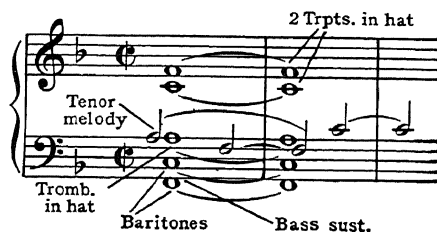
6. Organ effects.

There are several ways of voicing organ effects:

(a) With Trumpet on the melody.



(b) With Tenor Saxophone on the melody.



(c) With Violins on the melody



7. Saxophones in low register written in open harmony are very effective. Note the use of dynamics:



Carry Me Back to Old Virginny

By James Bland

1st Alto *p*

2nd Tenor *p*

3rd Alto *p*

1st B \flat Trumpet *Solo in Solotone* *mf*

2nd B \flat Trumpet

Trombone

1st Violin

Bass *p*

Drums *p*

Guitar *p* G G+ C G

Piano *p*

The Guitar-like rhythm created by the Bass and Saxophones is reinforced by the Guitar, the effect produced being very colorful as well as characteristic behind the muted Trumpet Solo. The Pedal or Organ point in the Bass is explained later in this chapter.

A Chinese effect in score form as follows:

1st Alto *mf*

2nd Tenor *mf*

3rd Alto *mf*

1st B \flat Trumpet Tonal Color mute *p*

2nd B \flat Trumpet Tonal Color mute *p*

Trombone

1st Violins *div.* *pizz.* *p*

Bass *p*

Drums *p*

Guitar *p* Cm B \flat Cm B \flat E \flat major7

Piano *p*

The fourths written for the two muted Trumpets and *pizzicato* Violins contribute a distinct Chinese atmosphere to the melody, which already is Chinese in character.

Pedal point or Organ point.

By the term "pedal point" we mean the repetition or sustaining of the same bass note for a number of bars. The harmony written with a pedal point can include many chords that do not contain the bass note. However, the first and last bars should contain the bass note as well as a liberal number of the chords in between. The Tonic or Dominant or both, struck at the same time, are usually the most suitable notes for a pedal point.

Pedal point is very effective in orchestrated form and can be employed in a number of different ways.

Following are examples of pedal point:

(sustaining bass) (rhythmic bass)

and

Pedal point is very effective used on the tonic with a Dominant Seventh chord or a Dominant Ninth.

Pedal point combined with a simple figure of counter-point is very beautiful and colorful. The real melody can be either above or below the figure and this figure should move in different rhythm with the melody as much as possible. The above example can be transformed into this effect very easily:

Following is an example of this effect in score form:

**On the Wrong Side of the Fence* By Beneé Russell and Allie Wrubel

The musical score is for the piece "On the Wrong Side of the Fence" by Beneé Russell and Allie Wrubel. It features the following instruments and parts:

- 1st Alto:** Melodic line starting with a *p* (piano) dynamic.
- 2nd Tenor:** Melodic line starting with a *p* (piano) dynamic, ending with a "Solo" marking.
- 3rd Alto:** Melodic line starting with a *p* (piano) dynamic.
- 1st Bb Trumpet:** Melodic line starting with a *mf* (mezzo-forte) dynamic, marked "Solo in Solotone mute" and "In hat".
- Trombone:** Melodic line starting with a *p* (piano) dynamic.
- 1st Violins:** Melodic line starting with a *p* (piano) dynamic, marked "(unison)".
- Bass:** Melodic line starting with a *p* (piano) dynamic.
- Drums:** Rhythmic accompaniment starting with a *p* (piano) dynamic.
- Guitar:** Chordal accompaniment starting with a *p* (piano) dynamic. Chords indicated: G, Gm, D7, Am, D7, G.
- Piano:** Chordal accompaniment starting with a *p* (piano) dynamic.

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SUSTAINING NOTES

A Sustaining Note is similar to a Pedal Point except for the fact that the note being held is in any other voice but the bass. For example:

The musical example illustrates Sustaining Notes. It shows a melody in the upper voices (treble clef) with notes that are sustained across multiple measures, while the bass line (bass clef) provides a steady accompaniment. The sustained notes are indicated by horizontal lines above the notes.

A counter-melody written for two Clarinets and Tenor Saxophone in unison can be used in the special chorus very effectively if the composition lends itself to this type of treatment. A melody that is readily adapted to muted brass playing *staccato* will usually be the most suitable for this type of treatment. The rules previously given for writing *obligatos* should be applied to this kind of counter-melody writing. See Example:

***Rooftop Serenade**

By Val Burton and Will Jason

The musical score for "Rooftop Serenade" is written for a large ensemble. The key signature has three flats (B-flat major or D-flat minor), and the time signature is 4/4. The score is divided into three measures. The instruments and their parts are as follows:

- 1st Alto:** Plays a counter-melody starting in the second measure, marked *mp* (mezzo-piano).
- 2nd Tenor:** Also plays the counter-melody, marked *mp*.
- 3rd Alto:** Plays the counter-melody, marked *mp*.
- 1st B♭ Trumpets:** Plays a staccato melody, marked *mf* (mezzo-forte).
- 2nd B♭ Trumpets:** Plays a staccato melody, marked *mf*.
- Trombone:** Remains silent throughout the piece.
- 1st Violins:** Plays a staccato melody, marked *mf*.
- Bass:** Plays a simple harmonic line, marked *p* (piano).
- Drums:** Plays a simple rhythmic pattern, marked *p*.
- Guitar:** Plays a simple harmonic line, marked *p*. Chords are indicated as B♭m7, E♭7, and Cm.
- Piano:** Plays a simple harmonic line, marked *p*.

“Rooftop Serenade”—continued

1st Alto

2nd Tenor

3rd Alto

1st B♭ Trumpets

2nd B♭ Trumpets

Trombone

1st Violins

Bass

Drums

Guitar

Piano

A♭ major 7

F7

B♭ m

B♭ m7

D♭

C m

8

8

The third eight bar phrase of the special chorus should be scored with a different color or effect than that of the first two phrases. The same effect can then be used in the last phrase as in the first phrase of this chorus, or an entirely new idea may be created.

VOICING FIVE BRASS

The following examples show several different ways of voicing three Trumpets and two Trombones. The Trumpets are usually written in close position harmony. The Trombones will be effective either in close or open position harmony below the Trumpets; however, open position harmony for the Trombones is preferable.

Unison effects are very powerful when written for five Brass.

If the arranger has five Brass at his disposal, the voicing may be so distributed that each player has a different part, thereby giving a great degree of fullness to the Brass Section.

The six musical staves illustrate different voicings for five brass instruments (3 Trumpets and 2 Trombones). Each staff is a grand staff with a treble clef for the trumpets and a bass clef for the trombones. The voicings are:

- Staff 1: Bass I, 2 Trombs.
- Staff 2: Bass I, 2 Trombs.
- Staff 3: Bass FV⁷, 2 Trombs.
- Staff 4: Bass FV⁷, Tromb.
- Staff 5: Bass C, 2 Trombs.
- Staff 6: Bass CV⁹, 2 Trombs.

MODULATION TO LAST CHORUS

This modulation can be made along the same lines as the one going to the Verse. However, it should be short and direct. Especially in "hot" numbers, a short modulation of two bars is very good. The type of modulation used here should be governed by the effect that is scored in the last chorus. If the last chorus is "swinging," the modulation can anticipate this effect by being scored in rhythmic style, building up until a climax is reached on the first beat of the last chorus. If the last chorus is "sweet" and *legato*, the modulation preceding it can also build up to this effect, but in a *legato* manner. This modulation can be four bars long if necessary.

For the time being, the Sequences can be again used as the basis for modulating to the last chorus. However, Chapter XI gives many more ideas for modulating than by the use of Sequences.

Following are examples of two bar modulations based on Sequences:

C to A \flat

A two-bar musical sequence in C major. The first bar contains a series of chords: C4-E4-G4, C4-E4-G4, C4-E4-G4, C4-E4-G4, C4-E4-G4, C4-E4-G4, C4-E4-G4, C4-E4-G4. The second bar contains: C4-E4-G4, C4-E4-G4, C4-E4-G4, C4-E4-G4, C4-E4-G4, C4-E4-G4, C4-E4-G4, C4-E4-G4. The key signature changes to A-flat major (three flats) at the end of the second bar.

B \flat to D \flat

A two-bar musical sequence in B-flat major. The first bar contains a series of chords: B \flat 4-D \flat 4-F \flat 4, B \flat 4-D \flat 4-F \flat 4, B \flat 4-D \flat 4-F \flat 4, B \flat 4-D \flat 4-F \flat 4, B \flat 4-D \flat 4-F \flat 4, B \flat 4-D \flat 4-F \flat 4, B \flat 4-D \flat 4-F \flat 4, B \flat 4-D \flat 4-F \flat 4. The second bar contains: B \flat 4-D \flat 4-F \flat 4, B \flat 4-D \flat 4-F \flat 4, B \flat 4-D \flat 4-F \flat 4, B \flat 4-D \flat 4-F \flat 4, B \flat 4-D \flat 4-F \flat 4, B \flat 4-D \flat 4-F \flat 4, B \flat 4-D \flat 4-F \flat 4, B \flat 4-D \flat 4-F \flat 4. The key signature changes to D-flat major (four flats) at the end of the second bar.

THE LAST CHORUS

This can be accomplished in many ways, depending upon the character of the composition. Using a counter-melody for the following instruments: Trombone, Tenor Sax and Trombone in unison, Tenor and Baritone in unison or unison Violins in the high register are some of the possibilities. Rhythmic fill-ins for Saxophones in unison can also be used.

Example 2 illustrates this type of ensemble chorus.

The melody from which this chorus was made was originally written as follows:

*Bless Your Heart

By Milton Drake, Harry Stride and Duke Enston



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A change of color should be used in the middle strain of the ensemble chorus. It is advisable to give the Brass a rest at this time, especially if they have been playing without much relief. The melody, in this place, can be given to a Tenor Saxophone, unison Saxophones, Saxophone trio, Piano solo or some special color that has not been used up to this point in the arrangement. However, care should be used not to let the arrangement "die" in this spot. Something interesting in the way of color will keep the arrangement from letting down. Following are examples of other types of ensembles in score form.

Ex. 2

***Bless Your Heart**

By Milton Drake, Harry Stride and Duke Enston

Swingy

The musical score is arranged for a big band and includes the following parts:

- 1st Alto**: Treble clef, starts with a *ff* dynamic. Features a triplet of eighth notes in the second bar.
- 2nd Tenor**: Treble clef, starts with a *ff* dynamic. Features a triplet of eighth notes in the second bar.
- 3rd Alto**: Treble clef, starts with a *ff* dynamic. Features a triplet of eighth notes in the second bar.
- 1st B♭ Trumpet**: Treble clef, starts with a *ff* dynamic. Features a long note in the second bar.
- 2nd B♭ Trumpet**: Treble clef, starts with a *ff* dynamic. Features a long note in the second bar.
- Trombone**: Bass clef, starts with a *ff* dynamic. Features a long note in the second bar.
- 1st Violins**: Treble clef, starts with a *ff* dynamic. Features a long note in the second bar.
- Bass**: Bass clef, starts with a *ff* dynamic. Features a long note in the second bar.
- Drums**: Bass clef, features a steady eighth-note pattern in the first bar and a cymbal pattern in the second bar.
- Guitar**: Treble clef, starts with a *ff* dynamic. Features a steady eighth-note pattern in the first bar and a cymbal pattern in the second bar. Chords are indicated above the staff: A♭, C7, F7, G♭7, and F7.
- Piano**: Treble and Bass clefs, starts with a *ff* dynamic. Features a steady eighth-note pattern in the first bar and a cymbal pattern in the second bar.

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Note the unison Saxophone figuration in the second bar.

In the next example a counter-melody is given to the Trombone and 1st Alto Saxophone in unison. The melody is supported by doubling the Tenor with the Trumpet an octave lower producing a full, rich ensemble effect.

Ex. 3

*Wonder Bar

By Harry Warren and Al Dubin

The musical score for "Wonder Bar" is arranged for a large ensemble. The key signature is one sharp (F#), and the time signature is 4/4. The score is divided into four measures. The instruments and their parts are as follows:

- 1st Alto:** Plays a melodic line starting on G4, moving up stepwise to D5, then down to C4. It includes a triplet of eighth notes in the third measure.
- 2nd Tenor:** Plays a melodic line starting on G4, moving up stepwise to D5, then down to C4. It includes a triplet of eighth notes in the third measure.
- 3rd Alto:** Plays a melodic line starting on G4, moving up stepwise to D5, then down to C4. It includes a triplet of eighth notes in the third measure.
- 1st B♭ Trumpet:** Plays a melodic line starting on G4, moving up stepwise to D5, then down to C4. It includes a triplet of eighth notes in the third measure.
- 2nd B♭ Trumpet:** Plays a melodic line starting on G4, moving up stepwise to D5, then down to C4. It includes a triplet of eighth notes in the third measure.
- Trombone:** Plays a counter-melody starting on G3, moving up stepwise to D4, then down to C3. It includes a triplet of eighth notes in the third measure.
- 1st Violins:** Plays a melodic line starting on G4, moving up stepwise to D5, then down to C4. It includes a triplet of eighth notes in the third measure.
- Bass:** Plays a melodic line starting on G2, moving up stepwise to D3, then down to C2.
- Drums:** Plays a rhythmic pattern of eighth notes in the first measure, followed by rests in the second, third, and fourth measures.
- Guitar:** Plays a melodic line starting on G4, moving up stepwise to D5, then down to C4. It includes a triplet of eighth notes in the third measure. Chords are marked: A7, Dm, and Em7♭5.
- Piano:** Plays a melodic line starting on G4, moving up stepwise to D5, then down to C4. It includes a triplet of eighth notes in the third measure.

The score is marked with a forte (*ff*) dynamic throughout. The key signature is one sharp (F#), and the time signature is 4/4.

Ex. 5

*You Lead the Parade

By Walter Kent and Carmen Lombardo

This musical score is for the song "The Sound of Silence" by Simon & Garfunkel. It is a full orchestration featuring vocal and instrumental parts. The score is written for the following instruments and voices:

- Vocalists:** 1st Alto, 2nd Tenor, 3rd Alto.
- Brass:** 1st and 2nd B♭ Trumpets, Trombone.
- Strings:** 1st Violins, Bass.
- Drums:** Drums.
- Guitar:** Guitar.
- Piano:** Piano.

The score is in the key of B-flat major (three flats) and 4/4 time. It begins with a piano introduction and includes various musical notations such as dynamics (e.g., *f*, *fz*), articulation (accents, slurs), and performance instructions (e.g., "The Sound of Silence"). The vocal parts feature harmonized lyrics, and the instrumental parts provide a rich, textured accompaniment.

*Copyright 1934, by M. Witmark & Sons.

The above example illustrates a martial effect that has been scored in the last chorus of an arrangement. Note the importance of the dynamics.

THE ENDING

After scoring the last chorus, we must close the arrangement with an ending. The type of last chorus we have scored will largely determine what kind of an ending will be appropriate. The melody of the ending can be developed from some outstanding phrase in the composition, or it can be created by the arranger.

A short, rhythmic ending about two bars long is very good for closing a "hot" last chorus in fast tempo. For example:

Ex. 1



Ex. 2



A *legato* ending, with perhaps a retard at the very finish, is appropriate for a slow "sweet" last chorus. This type of ending can be either 2, 4, or 6 bars long.

Ex. 3



Ex. 4

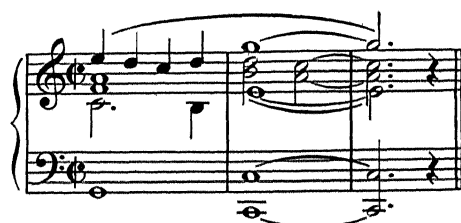


Please note that an added **sixth** is used in the final chord in the above examples. An added major **seventh**, or **ninth**, or both together, is often effective in a *legato* type of ending. It is usually better to lead diatonically to the **seventh** or **ninth**.

Ex. 5



Ex. 6



In Example 6, the **seventh** and **ninth** are "protected" or inclosed between other instruments, thus preventing them from sounding harsh.

Solos can be employed in endings very effectively.
See Example.

***Freckle Face**

By Cliff Friend and Carmen Lombardo

1st Alto

2nd Tenor

3rd Alto

1st Bb Trumpets

2nd Bb Trumpets

Trombone

1st Violins

Bass

Drums

Guitar

Piano

Solo

rit.

f

mp

Vibr.

Bb6

Eb9

Db+

C+

rit.

CHAPTER XI

MODULATION

Up to this point, we have made modulations by using only the Sequence of Sevenths and the Sequence of Ninths and Sevenths. It is obvious that modulations will sound very much alike if they are all based upon the principal of Sequences, even though we try to give each one a different treatment. It is, therefore, necessary to use other means of modulating for the sake of variety.

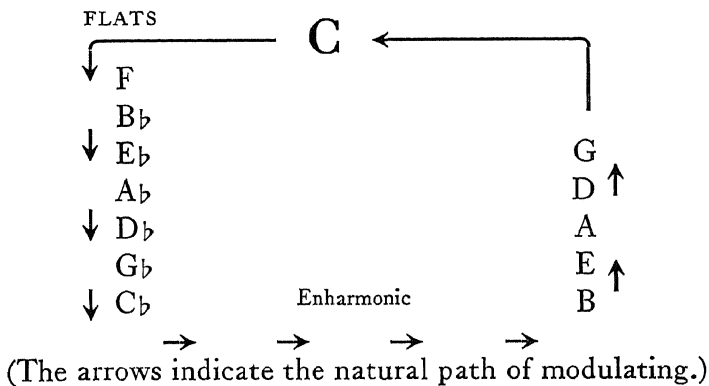
Modulation is a study in itself that cannot possibly be covered in a book of this type. Therefore, a number of "modulating plans" will be shown that will serve as a guide for creating original modulations.

In writing all modulations, we should strive for smoothness of progression at all times. This can be accomplished by resolving chords correctly and leading voices properly. The melody for the modulation can be taken from some distinctive phrase in the chorus or verse of the composition, or it can be created by the arranger. If the phrase of the composition does not fit the chord progression, the phrase may be altered slightly to make it suitable. This is called paraphrasing.

MODULATING PLAN NO. I

Passing through consecutive keys.

It will be remembered from the chapter on theory that we reach consecutive keys in flats and sharps in the following order:



It is apparent that if we wish to modulate from F- to A-flat, for example, we can do so by first going to the keys that are in the path between F- and A-flat. By referring to the above diagram we see that these keys are F-, B-flat, E-flat and A-flat.

The passing through these keys can be accomplished by any of the chord resolutions or alterations given in the chapter on harmony that will lead us smoothly through these keys. For example:



Note that it is not necessary to go to the **major** of the intermediate keys. (The first beat of the last bar is a secondary thirteenth.)

The arrows on the chart indicate the natural path to travel through the keys. It is very difficult to progress in the opposite direction to the arrows. The trick of going backward will be shown later.

Note that the arrow pointing from C-flat to B is called enharmonic. This is the path we can use in going to sharps, the flats being cancelled and the sharps automatically added.

Now, suppose that we should want to make a short modulation, but that we have to travel from C- to D-flat. It would obviously be difficult to go through the keys C-, F-, B-flat, E-flat, A-flat, D-flat, in a short modulation. There is a way around this, however, by going to the **seventh** in the Bass from any Major triad



and resolving it to a Sixth chord, minor, we immediately have added four flats.



We are now in F minor which is related to A-flat major.

It is not even necessary to go to the key of A-flat at this time, for we can move so easily to a Dominant Seventh and resolve to D-flat.

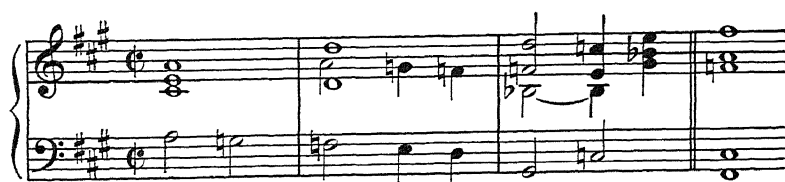


Now that we have a short cut, so to speak, for going through the keys, a modulation can be made to a distant key, such as C to D. (If the regular system were used, we would go by way of C-, F-, B-flat, E-flat, A-flat, D-flat, G-flat, C-flat (enharmonically B), E, A, and finally D.) By using the seventh in the Bass progression twice, we have:

Enh.



Of course, the **seventh** in the bass can be used on **any** major triad, adding four flats or taking off four sharps; for example:



Now, suppose that we should want to go backward through the keys, or in the opposite direction to the arrows. We have a rule that will add four sharps and take off four flats. The bass is moved down one half tone, and the upper voices are lead to a Dominant Seventh chord.



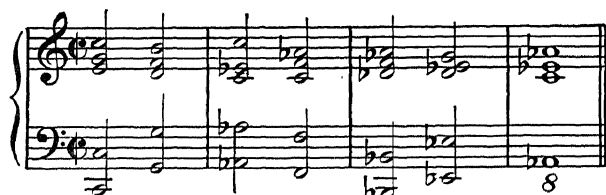
The use of two thirds in the first triad provides perfect leading of voices.

Suppose that we should desire to modulate backward only two keys or from B-flat to C; we can then use the four key elimination of flats and progress **onward** two keys:



With a little practice, the arranger should be able to modulate to any key that he desires by the above plan. He has plenty of leeway for using his own originality in this system since he is not bound by any "set" system of chords or rules other than those of Harmony itself.

The resolution of a Dominant Seventh to the sixth degree will also add four flats. The key should be more definitely established, however, before the modulation can be considered finished:



MODULATING PLAN NO. 2

Diminished Seventh Chord

We will remember that a Diminished Seventh chord is built on the seventh degree of a harmonic minor scale, and can be resolved to major as well as minor.

Regular resolution

Ex. 1



Resolution to Major.

Ex. 2



Ex. 1 resolves to C minor, which is relative to E-flat major.

Ex. 2 resolves to C major.

Now, we can call the tone D the seventh degree, and the same **sounding** chord will then be written as follows (minor thirds must be written up from the root):



This chord can then be resolved as before, to either major or minor:

Ex. 3



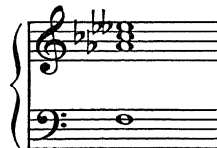
Ex. 4



Ex. 3 resolves to E-flat minor, which is relative to G-flat major.

Ex. 4 resolves to E-flat major.

Using the tone, F, as the seventh degree, we will write the chord as follows:



making the same two resolutions, we have:

Ex. 5



Ex. 6



Ex. 5 resolves to G-flat minor, which is relative to B double flat or A major.

Ex. 6 resolves to G-flat major.

Using the tone A-flat, or calling it enharmonically for the sake of simplicity, G-sharp, as the seventh degree, we will write the chord as follows:



Making the same resolutions, we have

Ex. 7



Ex. 8



Ex. 7 resolves to A minor which is relative to C major.

Ex. 8 resolves to A major.

Any of these resolutions can be used with the diminished chord inverted (with the 3rd, 5th, or 7th in the bass); also any position in the treble cleff portion of the chord can be used.

The following example shows one of these resolutions as it would be used in a regular modulation.



Modulation from
C- to E \flat

Each tone in a diminished seventh can be held while the other three are moved up one-half tone. The note that is held is then the Dominant of the next key. The resolution can be made either to major or minor:

Ex. 9



Ex. 10



Ex. 9 resolves to E minor, which is relative to G major.

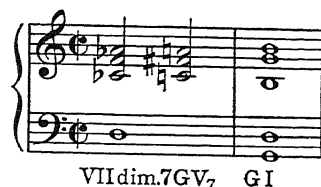
Ex. 10 resolves to E major.

Using the tone "D" in the bass, we have:

Ex. 11



Ex. 12



Ex. 11 resolves to G minor, which is relative to B-flat major.

Ex. 12 resolves to G major.

Using the tone "F" in the bass, we have:

Ex. 13



Ex. 14



Ex. 13 resolves to B-flat minor, which is relative to D-flat major.

Ex. 14 resolves to B-flat major.

Using A-flat in the bass, we have:

Ex. 15



Ex. 16



Ex. 15 resolves to D-flat minor which is relative to F-flat major.

Ex. 16 resolves to D-flat major.

Any of these resolutions can also be used with the diminished chord inverted. Any position of the treble clef portion of the chord can be used. The following example shows one of these resolutions as it would be used in a regular modulation:

Example



Each tone in a diminished seventh can be moved down while the other three are held. The note that is moved down then becomes the Dominant of the next key. This resolution can also be made either to major or minor:

Ex. 17



Ex. 18



Ex. 17 resolves to E-flat minor, which is relative to G-flat major.

Ex. 18 resolves to E-flat major.

Using the tone D in the bass, we have:

Ex. 19



Ex. 20



Ex. 19 resolves to G-flat minor, which is relative to B double flat or enharmonically A major.

Ex. 20 resolves to G-flat major.

Using the tone A-flat in the bass, we have:

Ex. 21



Ex. 22

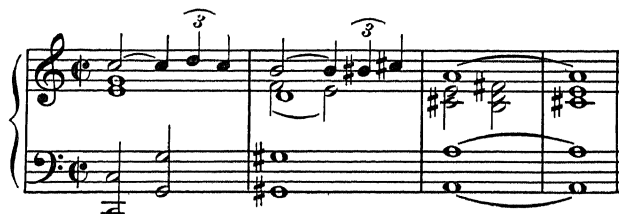


Ex. 21 resolves to C minor, which is relative to E-flat major.

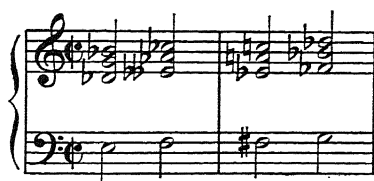
Ex. 22 resolves to C major.

Any of these resolutions can also be used with the diminished chord inverted. Any position of the treble clef portion of the chord can be used. The following example shows one of these resolutions as it would be used in a regular modulation:

Example



The diminished seventh may be used chromatically:



The progression can be stopped at any point and then one of the resolutions just described can be made.

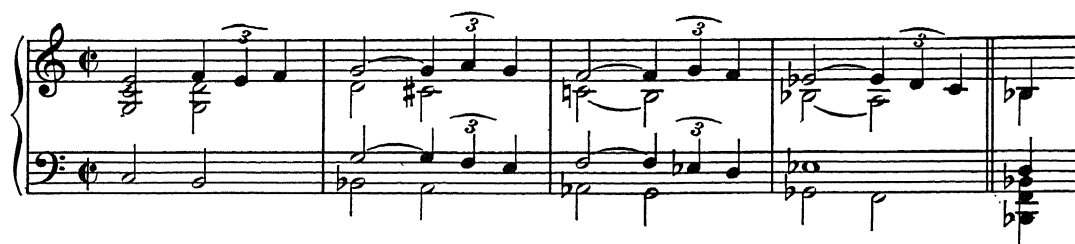
MODULATING PLAN NO. 3

BY DIATONIC PROGRESSION OF THE BASS

Modulations can be made very smoothly and effectively by leading the bass either by whole steps or half steps to the Dominant of the key to which we wish to modulate.

This plan should not be attempted unless the arranger is familiar with all of the inversions of the chords, as many of them will, no doubt, be used in moving the bass diatonically.

Example



Modulations, as a rule, are more effective when they are scored in ensemble. However, solos can be used in modulations to good advantage. If this is done, the solo should be of a different color than that preceding the modulation or coming after it.

The modulations in an arrangement show the technical ability of the arranger more than any other part of the orchestration.

APPENDIX

REMOLDING A STOCK ARRANGEMENT TO INDIVIDUAL REQUIREMENTS

The leader of the dance orchestra often wishes to change a stock arrangement so that it will fit the particular combination he is using, or feature one of his soloists to better advantage. It may happen that one or more of the musicians in his particular orchestra is proficient at doubling on instruments other than the ones generally employed in stock arrangements.

Probably the most common double in use at the present time is the Flute which is usually played by one of the Saxophonists. Since the Flute is written in the same key as the Violin, it can be played from the Violin part of the stock arrangement. Melodies of a light, *staccato* nature will be found especially effective for Flutes. If but one Flute is available, the two harmony parts in the Violin trio part may be played by Clarinets; the Violin parts being transposed up one tone by the Clarinet player. The range of the Violin harmony parts should be studied, as many Violin trios are written with the harmony parts too high to be played on Clarinets.

An important item to consider in changing a solo passage in a stock arrangement to a different instrument is whether the background already written in the arrangement will be suitable for such a change. There is no set rule that can be given regarding this point, as the number of possible solo and background combinations is so large that it would be impossible to cover them all. However, one point can be stated very definitely: That the background must **never** predominate over the solo in regard to volume. If a background does not sound well with some particular solo instrument it should be either omitted or a new background should be written. (See Chapter on Backgrounds.)

Possibly one of the Saxophonists is especially proficient at playing the sub-tone effect on the Clarinet. (See page 5.) This effect is not used in stock arrangements because, as stated before, the tone produced by a Clarinet playing sub-tone is so soft that it must be played into a microphone, after which it can be amplified to any extent by electrical means. However, if the leader wishes to employ such an effect, the Clarinet player will usually find a liberal portion of the melody of the composition in the First Trumpet part. This part can be transposed down one octave and played usually without further alterations since the Clarinet and Trumpet are both pitched in B-Flat. However, care should be taken in selecting a key that does not take the Clarinet beyond its range.

In the event that one of the Saxophonists plays the Oboe, the Violin melody part can usually be played an octave lower, thereby placing the Oboe in a pleasing register. Only melodies that are characteristic of the peculiar quality of an Oboe should be entrusted to it.

Many of the larger radio orchestras are using two Pianos. A Piano duet is very effective, particularly in the middle strain of a last ensemble chorus. The rhythm section of the dance orchestra usually plays softly behind the two Pianos.

A practice that is also very effective, if not used too often, is to omit the regular introduction of an arrangement and in its place have the Piano play a solo vamp in the high register. Wire brushes should be used by the Drummer behind this effect.

The length of a stock arrangement can be materially shortened by going from

the first chorus directly to the last chorus. In this case, the Piano usually plays a short modulation about two bars long that will lead to the key of the last chorus. However, this practice omits the special chorus of the arrangement which contains the most colorful part of the orchestration.

It is not always necessary to begin on the first chorus. A pleasing effect can often be produced by beginning with the Saxophone chorus (second line of the repeat chorus), the first and third Saxophones playing Baritones in place of Altos. The Tenor can play his regular part with the Baritones. The arrangement can also be started with the special chorus, provided the melody is sufficiently established for an opening chorus. Perhaps an interlude just before the special chorus can be used for an introduction.

No doubt, many more ideas for remolding stock arrangements will occur to the leader of a dance orchestra as his individual requirements become apparent.

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